

RECORDS CODE SHEET
SND 4535 (Rev. 1 65)

NAVAL AVIATION SAFETY CENTER

SUPPLEMENTARY (Card No. 2)

GENERAL (Card No. 1)

Bureau Number	1 50437	16-21	Weather			16-21	
Reporting Custodian	1 50	22-24	Kind of Flight	3 P 6		22-24	
Type Duty	J	25	Relative Wind + Direction	X		25	
Major Command	2	26	Relative Wind + Velocity	1		26	
Aircraft Damage	A	27	Special Attention	-		27	
Aircraft Injury	L	28	Clearance	2		28	
Time of Day	4	29	Maneuver prior to Occurrence	-		29	
Carrier Hull Number	-	30	Number of other Aircraft	-		30	
First Accident type	B 7	31-32	Primary Causal Factor	-		31-32	
First Accident phase	4 4 0	33-35	Altitude of Occurrence or Emergency	7 2 1		33-35	
Second Accident type	-	36-37	-	-		-	
Second Accident phase	-	38-40	Environmental Factors	-		38-40	
Type of Operation	3	41-42	-	-		-	
Contributing Cause Factors	Z	43-47	Non-Navy Injury ("R")	-		42	
Pilot Factor, First	-	48-49	Number of "A" or "U" Injury	1 2		43-44	
Pilot Factor, Second	-	50-51	Number of "B" Injury	-		46-47	
Pilot Factor, Third	-	52-53	Number of "C" Injury	-		48-49	
First other Personnel Factor	-	54-55	Number of "D" Injury	-		50-51	
Second other Personnel Factor	-	56-57	Number of "E" Injury	-		52-53	
Primary Major Material Factor	-	58	Number of "F" Injury	-		54-55	
Secondary Major Material Factor	-	59	Number of "G" Injury	-		56-57	
Design	-	60	Location	A E M U S T		62-68	
Facilities	-	61	-	-		-	
Special Data & Cond.	HIGH	62-65	-	-		-	
Special Data & Cond./Type of Incident	-	66	-	-		-	
Primary Cause	Z	67	ACCIDENT DAMAGE	A	Don't Care	Enemy Action	Other Aircraft
1st Posit. of Pri. Causal Factor	-	68	L D	7 9 9 2 4 1 0 1	Y R	M O	D A Y T Y P S E Q
1st Possible Cause & Causal Factor	1 G 0	69-71	ACCIDENT INJURY	L	-	-	-
2nd Possible Cause & Causal Factor	2 E 2	72-74	10	- F 4 0	11	12	13
No Personnel Card ("R")	-	80	FISCAL YEAR	7	14	15	16
				75			
					Model Code	13	1
						76	77

PERSONNEL STATISTICS
(Card No. 3)

File Number	(b) (6)	16	17	18	19	20	21	Rank	Rate	Service	Age	Year Enlisted	Station	Position	In	Ind	Absentee	A/C	Flight	Training	Utilization	Inst. Cat.	Total Time	All Made	All Standing	3 Months	All Service	3 Months	All This Month	3 Months	CY Logins	Hours	Instrument	Hours	Model	Total Time
03	FORD D R	3	1	E	A	E	1	L	1	2	0	7	3	3	0	0	3	0	0	2	0	2	2	3	1	7	1	0	9	9						
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	42	43	45	47	48	51	52-53	55	56-57	58-59	62-63	65-66	68	69-70	71-72	73-74						
04	HURD R P	4	1	D	-	K	2	L	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
None	16	17	18	19	20	21																														
File Number	(b) (6)																																			

IBM PERSONNEL CODED ON REVERSE SIDE

11 JUL 1967

CODED

REVIEWED

LOGGED

BB PUNCHED

VERIFIED

P 12 JUN 1967

CODE SHEET REVIEWED BY CLASS DESK ANALYST

(Initials)

(Date)

12 JUN 1967

FORD

SER. 258

I.D. Number	GCI	Model	FY	Month
70424101	08	-F4B	7	13

CARD 65

CARD 65A

CARD 65B

TYPE AIRCRAFT	TOP. SIZE	FRONT. SIZE	END. SIZE	FRONT. SIZE	END. SIZE	SEAT. POSITION	AIR- SPEED	WEIGHT	ON- BOARD ALERT	IN- CRASH AREA	TIME IN WATER	TIME IN PART	J	P	18 JUN	VERTEBRAL FRACTURES	EST. FAT.	INJURY ZONE
VEEM MILSHAP	T 7 3 2 E	F OR IN FF T	E J. I. O	E R. P. P. A.	E R. P. P. A.	E P. E T D	A C T A L	E G T T I	E C T A L	E C T A L	Time in water	Time in part						
AIRCRAFT	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	SIZE 2 2 2 2	in in	part						

FORD

SER. 258

I.D. NUMBER	GCI	MODEL	FY	MODEL CODE
70424101	00-F4B	7	13	

TYP	WAVE	WAVE	V	S	L	SURV.																																																			
P	HEI	HEI	NE	E	E	C.																																																			
E	VEL	VEL	LL	FE	FE	Y																																																			
M	IGN	IGN	AL	FT	FT	IND.																																																			
C	GY	GY	TEMP	TEMP	DATE	NOT																																																			
S	T	T	ALERT	TRG.	DATE	IN																																																			
16	17	18	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74

AEGT 381 CARD 67

ALERT	LOC.	TRG.			
FACTOR	SURV.	FAIL.			
VEH.	FAC. (NO	DATE			
DATE	REASU)	FACTOR			
AEGT	381	OB K B			

TRG.	TRG.	TRG.
DATE	DATE	DATE

NOT	IN	ON	OF
ES	ES	ON	IND.
RR	RR	RR	Y

TIME OF	LOC.	RESCUE	WE	TOP	TIME	DEP	SEQ
DAY	DUTY	VEHICLE	WEA	POST	THIS	J	NO OF
M	DR	VEH.	RES.	RA	ALERT	J	USE
I	O	TYPE	RESCUE	MIN	OF	J	END
S	O	VEH.	VEH.	COND	TECH	J	
H	C	TYPE	VEH.	COND	TECH	J	
A	A	VEH.	VEH.	COND	TEAM	J	
R	B	TYPE	VEH.	COND	WORK	J	
T	B	VEH.	VEH.	COND	TEAM/EQUIP	J	
E	A	TYPE	VEH.	COND	EQUIP	J	
N.	N.	VEH.	VEH.	COND	TEAM/EQUIP	J	

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CARD 68

TIME	LOCATOR	RESCUE
ALERT	MEANS	PROBLEMS
TO	PROS	SIG.
IN	PROS	PROC.
LOG.	REAS	RESCUE
RTE.	REAS	PROBLEMS
CH.	REAS	PROBLEMS

RESCUE
PROBLEMS

RESCUE
PROBLEMS

RESCUE
PROBLEMS

SURV.	TIME	RES. S.
C	RCM	TYPE RES.
C	TO	2D
D	PER	

16	17	18	19	20	21	22	23	24	25	26	27	28	29
----	----	----	----	----	----	----	----	----	----	----	----	----	----

35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

59	60	61	62	63	64	65	66	67	68	69	70	71	72	73
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CARD 69

HURD

SER. 258-

I.D. Number	SCI	MODEL	FY	Month
78424101	88	-F4B	7	13

TT AM Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	TT Z Ind.	C S Ind.
1619 11 17 20 21 22 23 27 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73										
AE H 0 S 3 A	J 2	J 1	K 5	D C	N 2	S 1	S 2		L 1 3	0 2

CARD 65

TT AM	Equipment	TT Z Ind.	C S Ind.							
1619 11 17 20 21 22 23 27 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73										
AE S 3	0 4	B 8	Q 8	P 4	-	A 8	E R	E 2	L 2 3	0 2

CARD 65A

TT AM	Equipment	TT Z Ind.	C S Ind.							
1619 18 17 20 21 22 23 27 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73										
AE M 8									L 2 3	0 2

CARD 65B

TYPE AIRCRAFT	TOP. SESS	ET. IN	EGRESS Prob.	EGRESS Prob.	EGRESS Prob.	EGRESS Prob.	EGRESS After	TYPE SELECT	FLIG. METOD	SEAT POS.	ACT. ALT.	AIR- SPEED	WEIGHT	ON CRASH ALT.	IN CRASH AREA	Time in water	Time in raft	VERTEBRAL FRACTURES	EST. PAT.	H. JURY	C S IND.	
AE	J 7																					

CARD 66

HURD

SER. 258

I.D. NUMBER	GCI	MODEL	FY	MODEL CODE
78424101	88-F4B	7	13	

TYP E M I C S	W AVE H E G N T	W AVE I N T E R T	V IS B I L	AIR TEMP	WATER TEMP	ALERT FACTOR	S I L E F T	L O C. C. O R U V.	S U R V.	SURV. FAC. SURV. (INC RE-AUD)	TRG. DATE	TRG. DATE	TRG. FACTOR	N O T E I N J U R Y	C E S O N O F I N D	
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74																
AEGT	381			OB	K	B					BBAB				2L	02
CARD 67																

TIME OF DAY	LOC.	RESCUE VEHICLE	NO TO BE RES CU ED	BAK UP	WATER	AIR	SEA T H E R	WE A MIND	RES. TEMP	RES. TEMP	COND IT ION	WE A MIND	RES. TEMP	RES. TEMP	TECH TECH AND AND TEAM TEAM EQUIP EQUIP	TRG. COM. RETRO RES. AND USED	REF. TEAM WORK, EQUIP	TOP TE AM IR SH RA PE Y	TOP TE AM IR SH RA PE Y	DIS TANC E	TIME MIS TO ALERT	ALERT METHOD OF PROB ALERT	TIME DEP J U R Y	C E S O N O F I N D
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74																								
CARD 68																								

TIME ALERT TO IN LOG.	FAIL TO REAS ON RTB EACH	TIME LOC TO MEANS PROB	LOCATOR PROB	TY P E M I C S	RESCUE PROBLEMS	RESCUE PROBLEMS	RESCUE PROBLEMS	SURV V. Y.	TIME RCH. TO Acc.	TIME REC. OF IND	
16 17 18 19 20 21 22 23 24 25 26 27 28 29				135 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74							
CARD 69											

A & R DEPARTMENT NARRATIVE CODE SHEET SMD 5293 (Rev 11/64)

YEAR	MONTH	DAY	TYPE	NUMBER	DAMAGE	INJURY	MODEL							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
7	0	4	2	4	1	0	1	AL	-	F	4	B		

BUREAU NUMBER

150437

79707775
7136

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

COLL WATER / CONT UNDET. FRP WAS TO FLY SPARROW INTERCEPT

7980
20

NARRATIVE BRIEF

6	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

WITH SIDEWINDER REATTACK AGAINST JINKING / TURNING BOGEY.
 ACFT CRASHED INTO SEA DURING SIDEWINDER REATTACK PHASE,
 AT 180-2M FT ALT + BOGEY AT 23-250 FT, LESS THAN 50
 MILES FROM FLD T/O POINT. NITE WAS CLEAR WITH LIGHT
 HAZE + FULL BRIGHT MOON. UNDET - POSS PLT DISORIENTATION.
 MOST CURRENT OPERATIONAL JET EXPER WAS 34 MONS PRIOR
 DISHAP. TOTAL TIME IN MODEL, 21 HRS PAST 3 MONS. POSS
 INSTR RIO ER-COMPLACENCY / PREOCCUPATION. ACFT OBSRVD BY
 BOGEY RIO TO EXPLO UPON WATER IMPACT.

7980
21
22
23
24
25
26
27
28
29
30PREPARED BY BS

PUNCHED

P

VERIFIED

13 JUN 1967

DISPATCH CARD
A/C ACCIDENTS ONLY
(REV 4-65)

CODED Eh DATE 4-26
LOGGED BSS DATE 4-26
PUNCHED J P DATE 29 APR '67

SUBJECT	DON'T COUNT	ENEMY ACTION	OTHER AIRCRAFT	CARD COLUMNS
IDENTIFICATION		7	Φ 4 2 4 1 0 1	1-8
ACCIDENT DAMAGE			A	9
ACCIDENT INJURY			L	10
MODEL AIRCRAFT		- F	4 B	11-13
BUREAU NUMBER		1 5	Φ 4 3 7	16-21
REPORTING CUSTODIAN			1 5 Φ	22-24
TYPE DUTY			J	25
MAJOR COMMAND			2	26
AIRCRAFT DAMAGE			A	27
AIRCRAFT INJURY			L	28
TIME OF DAY			4	29
CARRIER HULL NO.				30
FIRST ACCIDENT TYPE			B 7	31-32
FIRST PHASE OF OPERATION	<i>dr. with went miles</i>		4 4 0	33-35
TYPE OF OPERATION			3	41-42
CONTRIBUTING CAUSE FACTORS			2	43-44
NUMBER "A" OR "L" OR "U" INJURIES			0 1	48-49
SPECIAL DATA AND CONDITIONS			HIG	62-65
PRIMARY CAUSE			2	67
DISPATCH CARD				74
FISCAL YEAR			7	75
MODEL CODE			1 3	76-77

IBM NOTE: Keypunch a "12" overpunch in card column 8 to denote other aircraft.

50

NAVAL AVIATION SAFETY CENTER
NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

10/km
Ser 952

10 July 1967

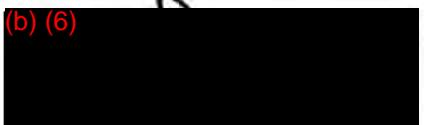
SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 SERIES
~~FOR OFFICIAL USE ONLY~~

From: Commander, Naval Aviation Safety Center
To: Commanding Officer, Fighter Squadron ONE ZERO ONE

Subj: VF-101 AAR ser 2-67A concerning F-4B BuNo 150437 accident
occurring 24 April 1967, pilot FORD

1. The subject report and all endorsements thereon have been reviewed. Commander, Naval Aviation Safety Center concurs with the comments and recommendations of the Aircraft Accident Board as modified by subsequent endorsers.
2. The cause of this accident has been recorded at the NAVAVNSAFECEN as UNDETERMINED with pilot disorientation/distraction and RIO preoccupation as possible contributing factors.

(b) (6)



By direction

Copy to:
NAVAIRSYSCOMHQ (AIR 404) (2)
COMNAVAIRLANT
COMFAIRKWEST
COMCARAIRWING-4
NAVPLANTREPO ST LOUIS

~~FOR OFFICIAL USE ONLY~~

DEPARTMENT COMMENTS FOR "CLOSE OUT" LETTER ON
CR FINAL REVIEW

- NC
1. Negative report is required.
 2. Positive comments will be in a format suitable for inclusion in the "close out" letter.
 3. Attach additional sheets if more space is required.
-

M&M DEPT: *No comment*

(b) (6)

2/1

INITIAL/CODE

AERO-MED DEPT:

No comments 10/42

No comment report

No Comment 7/10/433

INITIAL/CODE

COMPLETION SHEET

Endorsements Reviewed and Action Completed on All Phases of this Report.

UNIT VF-101AAR REVIEW ROUTING SHEETMODEL F4BADVANCE ROUTINGBUNO 150437

PRI	DEPT	DATE IN	DATE OUT	INIT.	INTER DEPT. ROUTING: CODE	CODE
	M&M		6-14	6	(b) (6)	
	AERO MED	19-67	6-26-67	6	Recd 83 W/19 W/24	

DEPARTMENT REPRESENTATIVES INITIAL FOR RECEIPT OF REPORTS:

REMARKS: Span W/19ORIGINAL ROUTINGDEADLINE DATE OUT OF NASC 5 JUL 1967 (calendar days)

EXTENSIONS _____

DEPT	DATE IN	DEPT. DEADLINE	DATE OUT	INIT.	INTER DEPT. ROUTING	CODE
A&R				wcc	/	/

NASC ENDORSEMENT ROUTING

PRI	DEPT	DATE IN	DATE OUT	INIT.	
1	R&S	7-6-67	7-6-67	el	
2	M&M				
3	ADMIN				

ROUTING AFTER CLOSEOUT

DEPT	DATE IN	DATE OUT	INIT.	INTER DEPT. ROUTING	
AERO MED				/ / / /	

NOTES: 1. No person other than those assigned to the Records Control Branch will remove any part of this document from the folder.
 2. Departments will be fully responsible and accountable for documents in their custody until checked back into Records Control Branch.
 3. Any Department desiring to retain this report longer than five (5) working days must notify Records Control Branch of their need for extension.

CNAL 002
Ser: 3786
16 JUN 1967

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

FOURTH ENDORSEMENT on VF-101 serial 2-67A, concerning F-4B, BuNo 150437,
accident occurring 24 April 1967, pilot FORD

From: Commander Naval Air Force, U. S. Atlantic Fleet
To: Commander, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident Report

1. Forwarded, concurring with the conclusions and recommendations of
the Aircraft Accident Board as modified by subsequent endorsements except
as follows.

2. Commander Naval Air Force, U. S. Atlantic Fleet recognizes the necessity
for realistic night intercept training in the low altitude-high speed flight
regime, but considers that such training must be tempered to some degree in
order to strike an acceptable balance between the training derived and the
hazard involved. Commander Naval Air Force, U. S. Atlantic Fleet plans to
review the F-4 training syllabus in the near future in an effort to determine
whether certain revisions to the syllabus are warranted or if maneuvering
limitations should be established.

(b) (6)



by direction

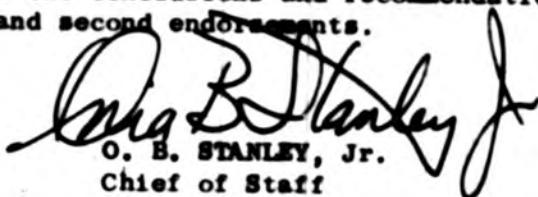
Copy to:
COMNAVAIRSYSCOM
COMFAIREWEST
COMRCVW-4
CO, VF-101
NAVFLANTREPO ST LOUIS

Code A31:bjb
3750
Ser 273
6 JUN 1967

THIRD ENDORSEMENT on VF-101 AAR 2-67A concerning accident of F-4B,
BUNO 150437 occurring 24 April 1967, Pilot FORD

From: Commander Fleet Air, Key West
To: Commander Naval Aviation Safety Center
Via: Commander Naval Air Force, U. S. Atlantic Fleet
Subj: VF-101 AAR 2-67A

1. Forwarded, concurring with the conclusions and recommendations of
the accident board and first and second endorsements.


O. B. STANLEY, Jr.
Chief of Staff

Copy to:
NAVPLANT REP MCDONNELL ST. LOUIS
CO, VF-101
RCVV-4

5722/2070-4/301:wpn
3750
SAC 225
2 JUN 1967

SECOND ENDORSEMENT on VP-101 AAR S-67A, concerning accident of F-4B,
BuNo 150437 occurring 24 April 1967, Pilot FORD

From: Commander Readiness Attack Carrier Air Wing FOUR
To: Commander Naval Aviation Safety Center
Via: (1) Commander Fleet Air Key West
 (2) Commander Naval Air Force, U. S. Atlantic Fleet
Subj: VP-101 AAR S-67A

1. Forwarded concurring with the conclusions and recommendations of the accident board and first endorser subject to the following comments.
2. The shortage of assets available to RCVW-5 has, through necessity, required that syllabus flight hours devoted to Training Replacement Pilots/Naval Flight Officers (NP/NFPO) remain within the syllabus flight hours approved by CNO. Accordingly, additional training requirements brought about by the introduction of new tactics and weapons in support of combat operations in SEASIA have been accomplished in RCVW-5 by substituting these for less demanding training flights. This policy has served to dilute the over all flight training which the NP/NFPO receives. Therefore, in order to meet fleet demands for more comprehensive training an increase in replacement pilot flight hours becomes a necessity.
3. COMNAVAIRLANT recently initiated a review of the flight syllabi for those aircraft in which aviator/naval flight officer training is currently being conducted. To assist in this review, requests were submitted to Commander's of AIRLANT Attack Carrier Air Wings soliciting comments and recommendations pertaining to training received by replacement pilots undergoing instruction within RCVW-5. Upon completion of this study, recommendations will be made to COMNAVAIRLANT to increase the months on board and flight hours to alleviate the conditions which are discussed in the basic AAR.

J. D. [Signature]
J. D. [Signature]

Copy to:
NAVPANT REP MCDONNELL ST LOUIS
CO, VP-101

ORIGINAL

Code 11:pa
3750
Ser: 563
19 May 1967

FIRST ENDORSEMENT on VF-101 A&R 2-67A, concerning accident of F-4B, BUNO 15437
occurring 24 April 1967, Pilot FORD

From: Commanding Officer, Fighter Squadron ONE HUNDRED ONE
To: Commander Naval Aviation Safety Center
Via: (1) Commander Readiness Attack Carrier Air Wing FOUR
 (2) Commander Fleet Air Key West
 (3) Commander Naval Air Force, U. S. Atlantic Fleet

1. Forwarded, concurring in the conclusion and recommendations of the accident board as modified by the following comments.
2. In order to meet current fleet level readiness requirements, pilots and radar intercept officers reporting to fleet F-4 squadrons must be fully qualified in the F-4 Weapons System. This qualification must include demonstrated competence to meet expected threats in the low altitude-high speed flight regime during night and all weather conditions. The TW-5 syllabus flight was designed to realistically train replacement pilots in that environment. This type of training is, by its very nature, hazardous and requires considerable skill in maintaining absolute control of the aircraft. The interceptor crew must be mentally disciplined to place their confidence and undivided attention in the flight instruments. It is incumbent upon both crew members to monitor attitude and altitude.
3. To establish restrictions on angles of bank or to limit airspeed or angle of attack during low altitude intercepts would unduly restrict and, on many occasions, prevent replacement pilots from making a successful intercept. Nevertheless, squadron doctrine has been modified to include "breaking off" the attack or terminating an intercept run at any time the aircraft descends 500 feet below its assigned or intended altitude. Further squadron doctrine has been modified to switch the Missile Select switch to "MAT" only after the reattack has been completed and the aircraft is stabilized in a proper storm position for Sidewinder delivery. The Squadron Ground Training Syllabus has been revised to reemphasize night and instrument procedures with particular regard to scan interruptions, visual cues and reliance, vertigo and other disorientation inducing factors.
4. Replacement pilots are carefully screened and observed by instructor pilots and AIOs in order to ensure that an adequate level of night and instrument proficiency is demonstrated prior to commencement of night, low altitude intercept training. Nevertheless, the flight syllabus is now under formal revision and the proposal will include the addition of one night instrument flight specifically designed to further ensure demonstrated competence at low altitude, high speed flight using high angles of bank.

C. A. Rank
C. A. RANK

Ser 560
19 MAY 1967

131/a

~~FOR OFFICIAL USE ONLY~~

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6
SERIES

From: Commanding Officer, Fighter Squadron ONE ZERO ONE

To: Commander, Naval Aviation Safety Center

Subj: Supplementary Accident Data concerning VF-101, AAR, F4B
BUNO 150437 occurring 24 April 1967, Pilot FORD

submission of

Ref: (a) 50/en ltr ser: 50/B247 of 8 MAY 1967

Encl: (1) Supplementary Accident Data Form for subject accident pages 1
through 5
(2) Reproduction of subject pilot's log covering month of accident
and two (2) preceding calendar months
(3) ~~Contracting Officer's Description Book~~
(4) ~~ICAO Document Recomendation Book~~

1. As requested by reference (a), the enclosures are forwarded.


C.A. RANK

~~FOR OFFICIAL USE ONLY~~

~~FOR OFFICIAL USE ONLY~~

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6
SERIES

SUPPLEMENTARY ACCIDENT DATA

In addition to answering the following questions, enclose a duplicate of the pilot's log covering the month in which the accident occurred as well as the preceding two calendar months.

1. Date of mishap: year 1967 month April day 24
2. Aircraft model F-4B
3. Bureau Number of aircraft 150437
4. Reporting custodian VF-101
5. Pilot file number (b) (6) /1310
6. Branch of service: Marine Navy
7. Readiness Attack Carrier Air Wing (RCVW) trained? Yes No
If Yes, date completed / / Not complete
RCVW Squadron VF-101
8. Percentage of training completed if in a formal training status 25%
9. Length of time (mo.) in present squadron 1 month
10. Pilot currently qualified in following aircraft (model and series)
F-4 AB-23 C-1A

~~FOR OFFICIAL USE ONLY~~

11. a. Specify training time (hrs.) with reference to date of mishap as follows:

	WST		OFT		CPT		LINK
	This model	All other models	This model	All other models	This model	All other models	
Previous 12 months	6 15c4	NA	NA	NA	5	NA	NA
Previous 6 months	6 15c4	NA	NA	NA	5	NA	NA
Previous 3 months	6 15c4	NA	NA	NA	5	NA	NA
Previous 1 month	6 15c4	NA	NA	NA	5	NA	NA

If training time in this model during previous three months was less than 3 hours in Weapons Systems Trainer (WST), Operations Flight Trainer (OFT), or Cockpit Training (CPT), indicate reason by checking appropriate spaces in part b.

(1) Pilot deployed

(2) Trainer not in area

(3) Down for maintenance

(4) Not available due to trainer schedule

(5) Lack of trainer personnel

(6) Not available due to pilot's schedule

(7) Other reasons (specify):



Note: Information on other model aircraft not available in pilot's log book.

~~FOR OFFICIAL USE ONLY~~

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6
SERIES

12. If flight was a maintenance test flight, was pilot designated by Commanding Officer as qualified maintenance test pilot? Yes _____ No _____ Not a test.
13. Commanding Officer's rating of pilot's ability: Superior _____
Average Below Average _____
14. Length of time (mo.) Commanding Officer
a. Has been aboard 10 months
b. Has been in command of this squadron 10 months
15. Estimate of total time (hrs.) involved in accident investigation by:
a. Accident board members 150 hrs
b. Wreckage recovery and salvage 100 hrs (rescue attempt only, no salvage.)
c. Supporting Personnel None
16. Best estimate of operation and maintenance funds expended for investigation and salvage (e.g. civilian salaries, O&R cost, equipment rental, etc.) \$ None.
Attach itemized breakdown.
17. Did funding cause a delay in wreckage recovery? Yes _____ No
If Yes, how long? _____ (days)
18. Was equipment for wreckage recovery adequate? Yes _____ No None used.
If No, list deficiencies. _____

~~FOR OFFICIAL USE ONLY~~

~~FOR OFFICIAL USE ONLY~~

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6
SERIES

19. Number of accident board members 5
20. Specify number of accident board members who have attended the following schools :
- a. Safety Officer's School, USC _____
 - b. Safety Officer's School, Monterey 1
 - c. Safety Center 5-day ASO School 1
 - d. Monterey Baccalaureate Curriculum Safety Course _____
 - e. Flight Surgeon School Pensacola 1
 - f. None of the above 2
21. Specify by checking if the:

	Manufacturer's Technical Reps were			Manufacturer's Engineers were		
	<u>Requested</u>	<u>Available</u>	<u>Utilized</u>	<u>Requested</u>	<u>Available</u>	<u>Utilized</u>
Airframe	_____	X	X	_____	_____	_____
Engine	_____	X	X	_____	_____	_____
Other	_____	_____	_____	_____	_____	_____

22. Was pre-accident plan adequate? Yes X No _____

~~FOR OFFICIAL USE ONLY~~

~~FOR OFFICIAL USE ONLY~~

**SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6
SERIES**

23. Did previous training adequately prepare the accident board for its duties?

Yes No _____

(If answer to questions 22 or 23 is No, please make comments)

COMMENTS:

Salvage not deemed feasible in this accident.

24. Has the command submitted any previous recommendation that included factors similar to those associated with this mishap? Yes _____ No

COMMENTS:

~~FOR OFFICIAL USE ONLY~~

FEBRUARY

1967

MONTH MARCH YEAR 1967

TOTAL THIS PAGE

64 6.4 0 6.4

RIGHT POSITION

3056.6 544 233 31.1

TOTAL TO GATT

3063.0 60823.3 31.5

"The power of science"

MONTH MARCH YEAR 1967

卷之三

APRIL

174

1967

DATE	AIRCRAFT		END OF FLIGHT COURSE*	PILOT TIME			SPE- CIAL Crew TIME
	MODEL	SERIAL NUMBER		TOTAL PILOT TIME	PIC PILOT	CO- PILOT	
3	F-4B	153076	1A1	1.2	1.2		
6	F-4J	153076	1A1	1.6	1.6		
7	F-4J	153076	1A1	1.5	1.5		
13	F-4B	148429	1A6	1.8	1.8		
17	F-4B	150422	1A6	1.5	1.5		
18	F-4J	153075	1A6	1.8	1.8		
19	F-4B	148429	1A3	0.6	0.6		
19	F-4B	151514	3A6	1.5	1.5		
20	F-4B	148400	3A6	1.6	1.6		
21	F-4B	14946	3A6	1.5	1.5		
21	F-4B	151514	3A6	1.7	1.7		
24	F-4B	148273	3A6	1.6	1.6		
24	F-4B	150473	3A6	0.5	0.5		

TOTAL TIME PAGE

179 179 179

DOCUMENT FORWARD

3065.8 63/246

TOTAL TO DATE

3083.7 81542539.0

*The new 1.0 oz.

100

ANSWER

CODES:		GCA	CCA	ILS	III-C
		radio range	ADF	INT	Catapult
INSTRUMENT		LANDINGS			
DAY	NIGHT	TYPE	OTHER LAND OR SEA	OF HR.	CHART
				4	
				5	
				1	
				3	
				1	
	0.8			1	
				4	
	0.5	1.5		1	
	1.0	1	3		
	1.0	1.5		1	
	1.2	1.7		1	
	0.1	1.6		1	(b) (6)
	0.5				
					TAN-3 HARD
					LOST AT SEA.
37	4	4	A		
8	9	81		22	
20	4				
8	25	343		24	
8	25	430		46	
TOTALS, THIS FISCAL YEAR					

PART I GENERAL

1 AIRCRAFT ACCIDENT BOARD APPOINTED BY CO, VF-101	2 SERIAL NO. 2-67A	3 DATE & LOCAL OF REPORT 2L2302 APR 67	4 MODEL AIRCRAFT F-4B	5 BUREAU NUMBER 150437
6 TO Commander Naval Aviation Safety Center		6 LOCATION OF REPORT 280°/42 mi. Key West TACAN	7 DAMAGE Alfa	
7 VIA COMCARAIRWING FOUR COMFAIRWEST COMNAVAIRLANT		8 TIME OF DAY Night	9 TIME IN FLIGHT 0+30	10 FLIGHT CODE 3A6
		11 CLEARED FROM Key West	12 TO Key West	
		13 TYPE CLEARANCE Local VFR	14 AIRSPEED E 350	15 A/C WEIGHT 42,000 E
16 BRIEF DESCRIPTION OF REPORT Collision with water		16 ELEVATION AT TIME OF REPORT SL 0 FERRARI 0		

20 LIST MODEL BRIEFLY REPORTING CUSTOMER AND DAMAGE CLASSIFICATION OF ANY OTHER AIRCRAFT INVOLVED. Consult OPNAV Form 3750-1 for code A/Q

None

SECTION B CONTRIBUTING FACTORS	FACTOR	FACTOR	FACTOR
<input checked="" type="checkbox"/> 1 Suspected PILOT ERROR IN TECHNIQUE/AUGMENT	9 SERVICING PERSONNEL	17 WEATHER	
2 PILOT DEVIATION FROM NATOPS PROCEDURES	10 LANDING SIGNAL OFFICER	18 DESIGN AIRCRAFT	
3 PILOT INCORRECT OPERATION OF A/C SYSTEM	11 OTHER PERSONNEL (Specify)	19 DESIGN CREW EQUIPMENT	
4 PILOT OTHER (Specify)	12 ADMINISTRATIVE	20 DESIGN OTHER (Specify)	
<input checked="" type="checkbox"/> 5 CREW RIO Error Suspected	13 FACILITIES-BUMPER OVERBUMP TAILHOOK FLIGHT DECK	21 ROLLING/PITCHING DECK ROUGH SEAS	
6 MAINTENANCE PERSONNEL	14 FACILITIES-NAV AIDS LANDING AIDS RRA, GCA, ILS, MIRRO	22 MATERIAL FAILURE/MALFUNCTION	
7 MAINTENANCE SUPERVISORY PERSONNEL	15 FACILITIES-CATAPULT, ARRESTING GEAR (Drop or Add)	<input checked="" type="checkbox"/> 23 UNDETERMINED	
8 SUPERVISORY OTHER (Specify)	16 FACILITIES OTHER (Specify)	24 OTHER (Specify)	

1 NAME (Last, First, & Middle Initial) PILOT OR CO-Pilot at time of mishap	2 DATE 1310	3 TIME USN	4 DATE (b)	5 TIME 1A	6 DATE R.P.	7 TIME Fwd	8 DATE A
CO-PILOT (Name & rank, if applicable) page 11							

SECTION C PERSONNEL DATA PILOT EXPERIENCE IN HOURS	ITEM	ITEM	
11 ALL MODELS	3081	17 LANDINGS DAY/NIGHT IN MODEL	ALL 330 50 IN MODEL 0 0
12 ALL MODELS IN LAST 12 MONTHS	105	18 FC/LP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL 4 0 IN MODEL 4 0
13 ALL MODELS IN LAST 3 MONTHS	33	19 INSTRUMENT FLIGHTS LAST 6 MONTHS IN ACTUAL	ALL 4 13 IN MODEL 4 2
14 ALL SERIES THIS MODEL OPT/OPT	AVC NA/5	20 NIGHT FLIGHTS LAST 6 MONTHS IN MODEL	ALL 10 IN MODEL 8
15 ALL SERIES THIS MODEL LAST 12 MONTHS OPT/OPT	AVC NA/5	21 TOTAL FLIGHTS JETB (if jet 1-12-67) LAST 12 MONTHS	2140
16 ALL SERIES THIS MODEL LAST 3 MONTHS OPT/OPT	AVC NA/5	22 LAST PRIOR FLIGHT ALL SERIES THIS MODEL DATE DURATION	26 Apr 19 1.6
23 BIRTH/GRADE LAST NATOPS STANDARDIZATION CHECK	No check in F-4B	24 TYPE CERTIFICATION CARD	Special

25 NAME (Last, First, & Middle Initial) OTHER PILOT	6 DATE HURD, Richard P.	7 TIME RIO	8 DATE LT	9 DATE USN	10 DATE (b) (6)	11 DATE VF-101	12 DATE A	13 DATE IRIO	14 DATE AVC
--	----------------------------	---------------	--------------	---------------	--------------------	-------------------	--------------	-----------------	----------------

PART II MAINTENANCE MATERIAL AND FACILITIES DATA										
A/A/C HISTORY	1 DATE OF MANUFACTURE	2 FLIGHT HRS SINCE ACCEPTANCE	3 NO OF PAR OVERHAUL	4 MONTHS SINCE LAST PAR OVERHAUL	5 FLT HRS SINCE LAST PAR OVERHAUL	6 LAST/PAR OVERHAUL ACTIVITY	7 TYPE OF LAST CHECK PERFORMED	8 FLIGHT HOURS SINCE LAST CHECK	9 DAYS SINCE LAST CHECK	
	25 OCT 62	1229.9	3	2	112.4	CHERPT	PAR EQUIV.	112.4	82	
	B ENGINE HISTORY	1 ENGINE MODEL	2 ENGINE SERIAL NUMBER	3 FLIGHT HRS SINCE ACCEPTANCE	4 NUMBER OF OVERHAULS	5 WAS DIR REQUESTED?	6 FLT HRS SINCE LAST OVERHAUL	7 LAST OVERHAUL ACTIVITY	8 TYPE OF LAST CHECK PERFORMED	9 FLIGHT HOURS SINCE LAST CHECK
	(1)	J79GE8	401131	520.0	1	NA	361.8	QUONSE POINT	Even	112.4
	(2)	J79GE8B	421849	429.4	None	NA	NA	NA	Even	112.4
	(3)									
	(4)									
	C COMPONENT HISTORY	1 COMPONENT INVOLVED Nomenclature	2 MANUFACTURER'S PART NUMBER	3 TOTAL HRS ON PART	4 NO OF OV-HAULS	5 MONTHS SINCE LAST OV-HAUL	6 OV-HAUL ACTIVITY	7 WAS DIR REQUESTED?	8 DIR NO FWD APPROVAL	
	(1)									
	(2)									
(3)										
(4)										
D INCIDENTS & GROUND ACCIDENTS	1 PARTS REPAIRED			2 PARTS REPLACED						
	PART NUMBER	NOMENCLATURE	3 DIRECT MAN-HOURS INVOLVED			PART NUMBER	NOMENCLATURE			
E ENGINE FAILURES	JET ENGINE FLAMEOUT (Include intentional securing to prevent engine damage)									
	1 ALTITUDE	2 RPM	3 RPM	4 EGT	5 MANEUVER AT TIME OF FLAMEOUT	6 FUEL FLOW	7 ATTITUDE	8 GND SPEED		
9 G FORCES	10 ALTITUDE	11 RPM	12 EGT	13 FUEL CONTROL	14 GND SPEED ATTEMPTS					
15 INTENTIONAL SECURE	16 ENGINE SYMPTOMS	17 CAUSE OF SYMPTOMS	18 RPM	19 EGT	20 FUEL FLOW	21 ATTITUDE	22 GND SPEED			
F OTHER REPORT	RECIPROCATING ENGINE FAILURE									
	17 ALTITUDE	18 RPM	19 ATTITUDE	20 RPM	21 EGT	22 TORQUE/RPM	23 FUEL FLOW	24 OIL PRESSURE		
25 INTENTIONAL SECURE	26 ENGINE SYMPTOMS	27 CAUSE OF SYMPTOMS								
NOTIFY OTHER REPORTS CONCERNING THIS REPORT										
1. AIRPLANE SERIAL NUMBER										
2. DIR MESSAGE REQUEST DATE-TIME-GROUP	4/24/67 0000Z APR 67									
3. OTHER	VP-101 250902Z APR 67 Preliminary msg rpt of accident.									
4.	VP-101 252301Z APR 67 Supplementary msg rpt of accident.									

AIRCRAFT ACCIDENT REPORT

OPNAV FORM 3780-1A (Rev. 3-63) Page 3

SPECIAL HANDLING REQUIRED IN TRANSMISSION

Para 68, OPNAV INSTRUCTION 3780.1A, effective 10 May 1963

OPNAV REPORT 3780

1 EQUIPMENT INVOLVED <input type="checkbox"/> CATAULST <input type="checkbox"/> ARRESTING GEAR		2 PRESSURE SETTINGS		3 WIND OVER DECK		4 RELATIVE WIND		5 APPROACH END SPEED	
6 MARK NUMBER		7 MODEL NUMBER		8 LOCATION OF SHIP		9 LAUNCHING BRADLE AND BRAKE AIR SYSTEM			
10 CATAULST/BRKNG GEAR BILL OF LADING OR NOMOGRAMS USED									

11 This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein.

G SHIPS DATA	12 ENGAGED	13 DECK RUNOUT (FEET)	14 RAM TRAVEL (INCHES)	CONTROL VALVE SETTINGS			15 ACCUMULATOR PRESSURE (PSI)	16 COMMENTS (for cable failures specify on headings and number in series)
				CONSTANT PRESSURE DOME (PSI)		RATIO		
DECK PENDANT								
DECK PENDANT								
BARRIER/BARRICADE								

FOR ACCIDENTS ABOARD CARRIERS (omits data on ship)								
1 DATE DEPLOYED COMBIS		3 DAY HOURS/LANDINGS SINCE DEPLOYMENT			4 DAY HOURS/LANDING LAST 30 DAYS			
2 NO DAYS OPERATING PERIOD								
5 NIGHT HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED		6 NIGHT HOURS/LANDINGS SINCE DEPLOYMENT			7 NIGHT HOURS/LANDING LAST 30 DAYS			

WEATHER AT SCENE OF MISHAP								
1 CEILING NONE	2 VISIBILITY 10	3 RELATIVE WIND DIRECTION AND VELOCITY 080°	4 TEMPERATURE RUMBLE OUTSIDE AIR 81	5 DEW POINT 65	6 ALTIMETER SETTING 30.14			
7 OTHER WEATHER CONDITIONS (Indicate only those which are most directly applicable)								

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	REMARKS	COPY DISTRIBUTION
				JCC NAVPLANT DIRECT (A&P) JCC BUREAU DIRECT (A&P) 1 cc RCVW-L 1 cc COMFAIRWEST 1 cc COMNAVAIRLAN 1 cc NAVPLANT REP McDONNELL ST. LOUIS

COST DAMAGE TO (b) (6)		3 GOVERNMENT PROPERTY NONE		4 PRIVATE PROPERTY NONE		5 DATE SUBMITTED TO CO 19 MAY 1967	
6 PERSONNEL (b) (6)		7 SIGNATURES OF THE PERSONNEL LCDR, USN VP-201 Operations Officer (b) (6)		8 MEMBERS (b) (6)		9 UNIT BILLET LCDR, USN Assistant Maintenance Officer UNIT BILLET (b) (6)	
10 PERSONNEL (b) (6)		11 SIGNATURES OF THE PERSONNEL LT, USNR LT(MC), USNR (b) (6)		12 MEMBERS (b) (6)		13 UNIT BILLET LCDR, USN VP-201 Survival Off (b) (6)	

- * When preparing Incident and Ground Accident reports, items indicated by a checkmark must be filled in. Other items considered appropriate should also be filled in.

and corner must be filled in.

LT, USN

VP-201 Safety Officer

PART V - THE ACCIDENT

LCDR FORD and LT HURD launched at 2232Z on 24 April 1967 as replacement pilot and instructor PIO respectively in F-4N BU NO 150437, call sign "WUTGRASS" 11-1, to conduct air intercept training. This flight was listed on the VF-101 flight schedule, dated 24 April 1967, which is used as the authority for local flight missions. (See enclosure (1)). EMS (b) (6) and LT (b) (6), replacement pilot and instructo PIO respectively, launched also as WUTGRASS 11-2 in F-4N BU NO 149451 as the second aircraft in the section. The two aircraft proceeded to Training Area 174 under TARPON control. (See enclosure (2)). The mission to be conducted was a T-5 (See enclosure (3)) with the fighter aircraft assigned 2,000 feet, 350 KCMH and the target aircraft assigned optional altitudes from 1,000 to 6,000 feet while maintaining 360 degrees CAS. In addition, the target aircraft was obligated to jink (turn) 20 degrees either side of his assigned heading.

After successfully completing two of these intercepts, and while in the runback phase of the third intercept, WUTGRASS 11-1 crashed into the sea. The position was 2800/42 miles from the "M" Key West "ICAN". The time was 2302R, 24 April 1967.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66,
OPNAVINST P3750.6E.

PART VI DAMAGE TO THE AIRCRAFT

The aircraft crashed at sea in about 90 feet of water at $24^{\circ} 40'$ north latitude and $82^{\circ} 26'$ west longitude or $280^{\circ} / 42^{\circ}$ from 'AS Key West TACAN incurring ALFA damage. Salvage was not attempted.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66,
OPNAVINST P3750,6B,

TARPON control notified the VF-101 squadron duty officer (SDO) of the accident immediately by hotline. The SDO in turn activated the VF-101 Pre-Accident Plan and notified designated personnel. Members of the board were assigned areas particularly worthy of intensive investigation and research. The accident board convened to review the limited information regarding the mishap. Search and rescue efforts were initiated rapidly and efficiently. The returning crew members were interviewed (See enclosures (4) & (5)).

The following day, 25 April 1967, the squadron was notified that a Coast Guard vessel had retrieved small pieces of the aircraft and a few articles of personal flight gear and clothing (see enclosure (12)). The articles were returned to the VF-101 hangar and inspected by the accident board members, qualified maintenance personnel, and McDonnell-Douglas technical representatives. The pieces of aircraft consisted mostly of honeycomb, outer wing panels, portions of wing tanks, insulation material from the cockpit, and some items of flight gear. Search efforts were discontinued on 25 April 1967.

PERSONNEL

1. Pilot Factors - LCDR FORD was a very experienced and extremely confident naval aviator who had compiled over 3000 hours primarily in the F-11 and F-8 (See enclosure (6)). His prior operational flying experience, however, was some 34 months prior to commencing F-4 training. During that period LCDR FORD had been assigned a shipboard billet aboard the USS INDEPENDENCE (CVA-62) and as a student at Armed Forces Staff College. During this period he had been limited to proficiency flying in the C-1A and US-2B, both multi-engine, non-jet aircraft. The lack of jet experience during this extended period is worthy of note. His formal jet instrument training (TF-9J) during the preceding 41 months consisted of 5.7 hours in February - March 1967. LCDR FORD accumulated 21 hours during 14 sorties in the F₄ series aircraft prior to this accident.

The VF-101 syllabus TW-3 flight outlined in Enclosure (3) calls for head on conversion to a 120 or 140 degree AIM 7D/F (Sparrow) intercept with AIM 9B/D (Sidewinder) reattacks against a jinking or turning bogey. A normal Aim 7D 120 degree attack with a reattack requires at least a 45 - 60 (degree angle of bank) break into the bogey after FOX 1 (simulated missile firing) and an immediate hard turn reversal of another 45 - 60 degree angle of bank to initiate the reattack. (A 140 degree attack would require slightly less angle of bank). A 60 degree angle of bank requires back stick force equivalent to 2 G's to hold the aircraft at constant altitude. Such turn reversals and aircraft maneuvering, particularly at low altitude at night, require the utmost concentration and pilot skill. The degree of difficulty becomes significantly greater because the pilot must not only concentrate on his flight instruments during the reattack but he must also scan the radar scope and interpret its symbols. Any distraction, disturbance, or breakdown of his instrument scan at low altitude could result in a fatal loss of altitude. The accident occurred during the Sidewinder reattack phase of the flight. Bogey altitude was 2,300 - 2,500 feet (See Enclosure (5)) and LCDR FORD's altitude was judged to be about 1,800 - 2,000 feet as he passed abeam of the bogey and initiated the reattack. Since the accident occurred shortly after this point the board thoroughly investigated the procedures involved and tried to take into account all of the factors present both in the aircraft and in the operating area at that time. The reattack is a demanding maneuver and requires considerable pilot and RIO technique. The scope must be analyzed; turn point must be judged; and action to commence a rate of turn must be initiated. Ideally, the pilot will select a bank angle or rate of turn which will place him at the bogey's six o'clock position for a Sidewinder FOX 2. The pilot is simultaneously obligated to judge the correctness of his radius of turn by scope interpretation, fly his instruments and reposition the Missile Select Switch to the "Heat" position.

During the reattack it is standard procedure to reposition the Missile Select on the Missle Control Panel to "Heat". This switch is located on the lower edge of the forward instrument panel approximately six inches left of center. It is within easy reach of the pilot's left hand in a cluster of four switches and does not require excessive hand motion to locate. If, however, the replacement pilot had to locate and check the position of the switch it could be a definite distraction requiring one or two seconds of his attention. The board considers that

even though the aircraft might have been in a high angle of bank and high "G" turn this would not, in itself, induce vertigo, specifically the coriolis effect. It could, however, have contributed to the accident by distracting the pilot from his primary concern of monitoring and flying instruments.

Instructor Radar Intercept Officers (IRIO's) normally expect a pilot to aggressively respond to the turns and angles of bank on night intercepts just as they would in the daytime. IRIO's interviewed after the accident stated that more than 45 degrees of bank were often necessary during reattack. At higher altitude IRIO's have had few qualms about directing the more experienced second tour pilots to angles of bank of 60 - 90 degrees to prevent overshooting the bogey's flight path during the reattack. At lower altitude, such as below 10,000 feet, most IRIO's stated they would not call for such excessively large angles of bank.

It is reasonable to surmise, however, that a replacement pilot would strive to respond to turns and give a similar angle of bank or rate of turn at lower altitudes just as he would at higher altitudes. At all altitudes and in all weather IRIO's routinely call for "port hard" or "starboard hard" turns which require 45 degrees angle of bank. An aggressive fighter pilot who is trying to "center" the radar steering dot on the scope might try to use a greater angle of bank. Other replacement pilots have been observed exceeding 60 degrees angle of bank at night and have been cautioned not to use such excessive angle of bank.

The area in which the accident occurred (Warning Area W-174) is a commercial shrimp fishing ground. Numerous shrimp boats were in the area at the time of the mishap. These boats have small lights attached, some of which appear to blink due to the rocking motion of the boats. The bogey or target aircraft was equipped with green and red wing tip lights, white fuselage lights and a rotating red beacon. LCDR FORD had no previous all weather fighter experience, however, he had accumulated considerable time in the F-8C in which visual reattack was standard procedure. Falling back on his previous training LCDR FORD may have instinctively been prone to seek a visual bogey acquisition during reattack. If LCDR FORD had made a visual reattack (not standard procedure in the F8B) he might have become disoriented and mistake one of the many shrimp boats in the area as his target thereby flying into the water.

Should a pilot mistake a shrimp boat for his target while traveling at an estimated 350 knots, less than 5 seconds will elapse before the aircraft will collide with the water assuming a 45 degree nose down attitude.

The weather on the night of the accident was ideal for flying. A full moon prevailed about 25 degrees above the horizon. There was no cloud cover in the immediate area of the accident and the stars were clearly visible. The horizon was somewhat indefinite, being obscured by a low haze layer and low, distant, scattered clouds (See enclosures (5) and (11)). Several other crew members mentioned, prior to the flight, that it was a beautiful night to fly. This could have contributed to an attitude of complacency. In spite of the excellent weather, the possibility of pilot disorientation was present.

Another area investigated was a possible "lost contact" on the radar scope. In a reattack, particularly in an overshooting situation, the bogey frequently will slide outside the radar gymbal limits of 60 degrees. Should this happen it is necessary for the RIO to switch back to the search mode to reacquire the target and obtain a re-lock. Such action would definitely cause the IRIO to be distracted from his instrument (altimeter - airspeed - attitude) scan. Similarly, such action could easily induce the pilot to "take a peek" outside and try to visually acquire the bogey.

The possibility of disorientation and inadvertent collision with the water is highly suspect. Given an aggressive former day fighter pilot eager to "bend" or turn the aircraft at high angle of bank, a call to "switch to Heat" mode, visual reliance on the reattack, many distracting lights (shrimp boats) in the area, a possible "lost contact" on the scope and a bright moon lit night all combine to set the stage for distraction and subsequent misjudgement of altitude or disorientation.

The accident board discussed the possibility of a stall/spin. The difficulty of accomplishing a successful reattack is in fairly direct proportion to the amount of lateral separation at the time the reciprocal aircraft paths meet. Enclosure (5) states the run appeared normal indicating that sufficient lateral separation had been retained for a reattack using a moderate angle of bank and "G" loading. Nevertheless, pilot and/or RIO interpretation, might have indicated a minimum radius of turn was appropriate to achieve a six o'clock position for a Sidewinder FOX 2. Enclosure (4) states NUTGRASS 11-1 appeared to descend about 500 feet below his altitude and then level out as he turned into the reattack. This would place his altitude at about 1,800 - 2,000 feet. If, at this point, the aircraft was maneuvered to an excessively high angle of attack and stalled or departed from the flight envelope, little altitude or time would remain for a recovery, a radio transmission or ejection. At such a low altitude in a region in which engine and control response is so effective the possibility of a spin is remote, however a stall or uncontrolled flight at an excessively high angle of attack is a possibility. This was the second flight of the evening for LCDR FORD. He had received an adequate night's sleep the previous night. His previous flight under essentially the same weather conditions, was uneventful and judged average by an instructor other than the one who accompanied him on the fatal flight. He gave no evidence or indication of fatigue and appeared eager for the next mission. The board does not consider fatigue a factor.

2. Radar Intercept Officer Factors LT HURD had been an instructor in VF-101 for the past 14 months. He reported to VF-101 from the Naval Plant Representative Office, St. Louis, where he had served as a Radar Intercept Officer in acceptance of all models of production F-4 aircraft. This was preceded by duty as a Bomber/Navigator in a heavy attack squadron flying A-3 Skywarriors. LT HURD had not previously been assigned to a fleet F-4 squadron. His total F-4 flight time was 815 hours (See enclosure (7)).

Since LT HURD's previous experience was in A-3 aircraft and his F-4 experience in primarily daytime acceptance/test flights at St. Louis, it is considered noteworthy that LT HURD had not been exposed to night or all weather maneuvering in the F-4 except as instructor for replacement pilots. LT HURD was regarded as a cautious, highly competent RIO, yet he may have mistaken aggressiveness on the part of LCDR FORD, especially in his tight maneuvering, for significantly great instrument proficiency, when in fact LCDR FORD may have been relying on visual cues to maneuver the aircraft.

RIO complacency is also considered worthy of note. The replacement pilot classes are usually composed of a few second tour pilots usually senior LT's, LCDR's and CDR's plus a number of recently designated first tour aviators. A normal tendency exists to relax a bit more with a second tour aviator than with a newly designated aviator. It is considered possible that LT HURD was not scanning the altimeter and attitude gyro as actively on this flight as he would have been had the pilot not been a Lieutenant Commander and a second tour aviator.

This was the RIO's second flight of the evening. Fatigue is not considered a factor since LT HURD had received an adequate night's rest.

3. Maintenance Servicing and Ground Handling Personnel Factors. The maintenance records of the aircraft were reviewed extensively for indications of maintenance error or possible material failure. A statement by the Maintenance Officer is included (See enclosure (8)). This statement details the available service history of the aircraft and lists the discrepancies encountered during the last ten flights. Thorough investigation of the logbooks, yellow sheets, and maintenance records revealed no deviation or variation from accepted good maintenance practices and procedures. Each completed discrepancy work order contained an acceptable and reasonable indication of proper corrective action. Several yellow sheet or maintenance control register discrepancies or "UP GRIPED" had not been worked off!

DATE	DISCREPANCY
1. 20 FEB 67	Replace hook assembly when received from supply
2. 29 MAR 67	Front cockpit "G" valve opens at 4 G's
3. 11 APR 67	Radar - poor lock on and no symbol control

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST P3750.6B

4. 13 APR 67 Stab aug kicked off twice when 5 G's pulled - OK last 30 minutes of hop
5. 17 APR 67 Util hyd filter popped, reset, and popped again
6. 19 APR 67 Nose wheel steering pulls to right at all times
7. 19 APR 67 Radar dot inaccurate
8. 22 APR 67 Radar aim dot not stabilized

Of these eight discrepancies only items number 3, 4, 7, and 8 appear to have any remote relationship to this mishap and warrant consideration by the board.

Item number 3 - "Weak Radar lock on" is not considered a factor because the nine subsequent radar debriefing sheets disclosed that the shortest radar lock on range occurred at 35 miles and the average radar lock on range was in excess of 40 miles.

Item number 4 - "Stab aug kicked off twice when 5 G's pulled - OK last 30 minutes of hop" was considered a remote factor. Disengaging stabilization augmentation (Stab Aug) can cause a minor degree of pitch oscillation or induce a moderate "Dutch Roll" tendency in the speed regime in which the aircraft was flying just prior to the accident. Five G's would not normally be required during a reattack, particularly at night. The aircraft flew sixteen flights between the time this discrepancy appeared on 13 April and the accident on 24 April. This malfunction was not noted by any of the subsequent pilots. Such a Stab augmentation problem cannot be disregarded as a contributing factor, but is classified as a very remote possibility.

Item number 7 and 8 "Radar Steering aim dot inaccurate or not stabilized", may have some bearing on the pilot's maneuvering during the reattack. A statement clarifying the discrepancy is included as enclosure (10). Although the radar steering dot was not properly stabilized when the aircraft went into a slight angle of bank the dot still indicated the correct relative direction of the bogey on the radar, (i.e., it did not give an erroneous turn indication to the pilot). The radar steering dot in this instance acted precisely as the radar heat dot which is selected in the reattack for sidewinder missile launch. The inaccurate or unstabilized radar steering dot again cannot be disregarded as a contributing factor, but must be classified as possible pilot/RIO distraction during the early portion of the intercept and possibly during the initial phase of the reattack. The steering dot, at any rate, displaced itself to the safe side of the scope in any turn, i.e., away from the direction of turn.

The Plane Captain who preflighted the aircraft prior to its last flight was interviewed and questioned (See Enclosure (9)). His preflight of the aircraft was in accordance with NATOPS and VF-101 Maintenance Procedures. The aircraft was fully serviced and ready for flight. Functional checks of the aircraft were completed prior to take off. No discrepancies were noted.

4. Supervisory LCDR FORD's lack of recent operational experience could have been a factor in this accident however, the command training records and assigned flight grades indicate he was proceeding through the syllabus with very little difficulty. His flight grades were above average. Interviews with instructors who had flown with LCDR FORD revealed that he was extremely confident and very competent naval aviator.

These same interviews revealed that LCDR FORD was very sensitive to his assigned flight grades and constantly strove to excel. He was somewhat reluctant to accept constructive criticism of his flying technique and was quite confident of his own ability to fly the F-4.

The board considers that LCDR FORD was fully qualified for the mission for which he was scheduled.

From every available indication there was no maintenance personnel error or omission and the aircraft was ready for flight in all respects.

MATERIAL FAILURE OR MALFUNCTION

The debris recovered from the scene of the accident was thoroughly inspected by the board. The honeycomb sections found were partially burned, however.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST P3750.6E

it was considered likely that this occurred as a result of the explosion on impact rather than an inflight fire or explosion. No damage to recovered component other than that which would have occurred on impact with the water was found. These few retrieved items gave no indication of aircraft material failure or malfunction.

The Key West Coast Guard facilities were utilized just after the accident to request information from possible eye-witnesses aboard the shrimp fishing fleet. Despite two attempts, no witnesses to the accident were found other than the crew of NUTGRASS 11-2. The board could find no evidence or indication inflight fire, explosion, or other catastrophic failure. No radio communication from the crew was in evidence which might have signalled some airborne discrepancy.

Although the possibility of AJS-3 attitude gyro failure, complete electrical failure, double engine failure, control malfunction, or some such material failure may have occurred, the board considers such occurrence to be possible but remote.

FACILITIES

Search and rescue operations were commenced immediately upon notification of the crash. NUTGRASS 11-2 remained on the scene and an EC-121 was vectored to the area. In addition, an HU-16 was summoned from Miami and Coast Guard Cutters were dispatched from Key West. The search and rescue efforts were initiated rapidly and efficiently. The search continued throughout the night using search lights and flares. Results were negative.

The search of the following day revealed small pieces of honeycomb from the aircraft, portions of wing tanks and outer wing panels and flight clothing and survival gear which had been worn by the aircrewmembers. The aerial search for survivors was terminated at 1940R, 25 April 1967 and the surface search was terminated at 2100R, 25 April 1967 with negative results.

NATOPS

There are no known deviations from NATOPS pertinent to this accident.

SUMMARY

In recapitulation of the investigation and analysis of the mishap the board points to the following abbreviated topics as factors which cannot be lightly dismissed:

- (a) An aggressive, somewhat overly-confident aviator reluctant to accept constructive criticism and sensitive to flight grades.
- (b) A second tour Lieutenant Commander whose most recent operational jet experience was ~~over~~ months prior to the mishap.
- (c) Disorientation or distraction due to:
 - (1) Instrument scan breakdown
 - (2) Steep turn or angle of bank
 - (3) Visual target acquisition
 - (4) Missile select switch (heat)
 - (5) Hazy horizon and full moon
 - (6) Lights (shrimp boats)
- (d) Possible stall or uncontrolled flight due to high angle of attack at too low an altitude to effect recovery.
- (e) A complacent and/or distracted IRIO, preoccupied with regaining possible "lost contact", or scan breakdown.

PART VIII

CONCLUSION

The cause of the accident is UNDETERMINED. The more likely cause factors, or combinations of cause factors, are as follows:

- a. Aircraft inadvertently flown into the water
- b. Pilot disorientation or distraction
- c. Stall/uncontrolled flight

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST P3750.6E

PART IX

RECOMMENDATIONS

Recommend that the RCVW Instrument Training Units expand their syllabus by one flight to provide F-4 replacement pilots with relatively high speed, low altitude hooded instrument training.

Recommend that F-4 replacement training squadrons reevaluate the instrument training proficiency and capability of its replacement pilots with a view toward placing some combination of more stringent restraints on how they may maneuver the aircraft during the reattack phase of night, low level intercept training.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST P3750.6B.

VF-101 MAR 2-67A, F-4B BUNO 150437 OCCURRING

24 APRIL 1967, PILOT FORD

INDEX TO ENCLOSURES

1. VF-101 FLIGHT SCHEDULE OF 24 APRIL 1967
2. STATEMENT OF AIR INTERCEPT CONTROLLER
3. TM-5 MISSION BRIEFING GUIDE
4. STATEMENT OF ENGS (b) (6) USNR
5. STATEMENT OF LT (b) (6), USN
6. RESUME OF FLYING EXPERIENCE OF LCDR DANIEL R. FORD, USN
7. RESUME OF FLYING EXPERIENCE OF LT RICHARD T. HUPP, USN
8. STATEMENT OF VF-101 MAINTENANCE OFFICER
9. STATEMENT OF THE PLANE CAPTAIN
10. STATEMENT OF LT (b) (6) USN
11. KEY WEST WEATHER REPORT
12. MEDICAL OFFICER'S REPORT (ORIGINAL ONLY)

MONDAY's FLIGHT TRAINING SCHEDULES CON'T (4-24-67)					
TO/LD	S/N	CREW	MISSION	CALL	ES
1900	—	FORD (b) (6)	TW-4	10-1	(1)
2045	—	(b) (6) HURD	TFN-5	10-2	(1)
1900	—	(b) (6)	TFN-5	10-3	(1)
2045	—		TFN-6	10-4	(1)
1900	—	(b) (6)	TW-1	10-5	(1)
2045	—		TFN-6	10-6	(1)
2200	2345	FORD/HURD	TW-5	11-1	(1)
	—	(b) (6)	TFN-6	11-2	(1)
2200	2345	(b) (6)	TW-1	11-5	(1)
	—		TW-3	11-4	(1)
2200	2345	(b) (6)	TW-1	11-5	(1)
	—		TW-3	11-6	(1)

NOTES: (1) DUMMY AIM-9/7E WAFER
 (2) NO RADAR REQUIRED

SATURDAY's GROUND TRAINING SCHEDULE 4/22/67

TIME	EVENT	ATTENDEE	LECTURE	ROOM	INSTRUCTOR	COMP/INC
0800	PF-14	CLASS 3	EMERGENCY PROCED.	248	(b) (6)	/
0900	PF-14a	CLASS 3	EMERGENCY PROCED.	248		/
1000	PF-16	CLASS 3	EMERGENCY PROCED.	248		/
1100	PF-12	CLASS 3	P-4B FLIGHT CHARACTERISTICS/SPINS	248		/
1200	EFT-1	CDR (b) (6)		CPT		/
1200	BTW-A	(b) (6)		15C4	(b) (6)	/
1300	EFT-1			CPT		/
1300	BTW-A			15C4		/
1400	EF-1			CPT		/
1400	BTW-A			15C4		/
1500	EF-1			CPT		/

CALL AACU AS/RC CALL RC/DC

THE BELOW LISTED PLANES ARE DUE FOR INSPECTION FOR THE PERIOD OF
 24 APRIL 1967 THRU 28 APRIL 1967.

146	(b) (6)	185	(b) (6)
147		186	
150		191	
154		143	FORD (b) (6)
195			
196			

SPECIAL HANDLING REQUIRED

in accordance

66 OPNAVINST 3750.6E

ENCLOSURE (1)

FIGHTER SQUADRON ONE HUNDRED ONE
NAVAL AIR STATION
KEY WEST, FLORIDA

SQUADRON DUTY OFFICER

ENS (b) (6)

TEST CREW - (b) (6)

COMMAND DUTY OFFICER

LCDR (b) (6)

TAXI PILOT - (b) (6)

Saturday, 4/22/67

SUNRISE: 0559

SUNSET: 1852

FLIGHT TRAINING SCHEDULE

HOURS SCHEDULED: 12.6 SORTIES SCHEDULED: 10

TO/LN	S/N	CREW	MISSION	CALL	NOTES	OFF/ON/TIME	MS/AS/RC
0800/		(b) (6)	TW-20	1-1	{1}		
0930			TW-27	1-2	{1}		
0830/			TT-5	2-1	{1}		
0945			TT-5	2-2	{1}		
			ST-5	2-3	{1}		
0900/			TF-1	3-1	{2}		
1030			TF-1	3-2	{2}		
1200/			TT-6	4-1	{1}		
1315			TT-6	4-2	{1}		
			ST-6	4-3	{1}		

NOTES: (1) DUMMY AIM-9/TE WAFFER
(2) NO RADAR REQUIRED

SQUADRON DUTY OFFICER

ENS (b) (6)

TEST CREW - MAGNELL/BERTRAND TAXI PILOT - (b) (6)

COMMAND DUTY OFFICER

LCDR (b) (6)

Sunday, 4/23/67

SUNRISE: 0559

SUNSET: 1852

SQUADRON DUTY OFFICER

LT (b) (6)

Monday, 4-24-67

SUNRISE: 0557

SUNSET: 1853

FLIGHT TRAINING SCHEDULE

HOURS SCHEDULED: 51.1 SORTIES SCHEDULED: 33

TO/LN	S/N	CREW	MISSION	CALL	NOTES	OFF/ON/TIME	MS/AS/RC
0645/		(b) (6)	TT-8	1-	{ } ()		
0800			TT-8	1-2	{ } ()		
			ST-8	1-3	{ } ()		
0800/			TF-2	2-1	{2}		
0930			TF-2	2-2	{2}		
0800/			TW-22	2-3	{1}		
0930			TW-26	2-4	{1}		
0830/			TW-1	3-1	{1}		
1015			TW-26	3-2	{1}		
1030/			TW-2	4-1	{1}		
1215			TW-2	4-2	{1}		
1200/			TF-3/TI-1	5-1	{2}		
1330			TF-3/TI-1	5-2	{2}		
1300/			TW-23	6-1	{1}		
1430			TW-27	6-2	{1}		
1400/			TW-25	7-1	{1}		
1530			TW-27	7-2	{1}		
1500/			TW-2	8-1	{1}		
1645			TW-1	8-2	{1}		
1600/			TT-1	9-1	{1}		
1715			ST-1	9-2	{1}		

CALL

ACCU

AS/RC

ALL

RC/RC

Statement of RDI (b) (6) USN, (b) (6) (Intercept Controller at Tarpon) concerning accident of F-4B 150437 occurring 24 April 1967.

I assumed control of AUTORASS 11-1 and 11-2 at approximately 2235Z. The first phase of the event was a TW-5 (Low Level) 35 mile separation, head on setup. 11-1 was on his third run going for a reattack fox 2. The bogey was on a jinking run with an assigned heading of 180°. The first indication that 11-1 had crashed was when 11-2 called MAYDAY and said he saw a splash. I told 11-2 to orbit the position and then I called Key West Tower and gave the call and position of 11-1 bearing 280°, range 40 miles. 11-2 said he saw no parachutes or signs of survivors, only an oil slick on the water. 11-2 said there were several boats in the area and one appeared to be heading for the crash site. The time of the crash was approximately 2305Z. I was relieved on the scope at approximately 2320 by (b) (6) [REDACTED] ZG.

(b) (6)
[REDACTED]

TM-5 HEAD ON LOW ALTITUDE CONVERSIONS (JINKING BOGEY) TIME: 2.0

1. Controlling Conditions:

SPEED	ALTITUDE	SEPARATION	JINK	CHAFF
VF = 350 KCAS	2000 ft.	35 MI	ALTERNATE +20°	YES
Vt = 300 KCAS	1-5000 ft.			

2. Mission:

Radar/visual rendezvous. Conduct head on conversions to $120^{\circ}/14^{\circ}$ (AIM 7D/E) intercept with AL-9/L reattacks against a jinking bogey. Target permitted to jink in heading, altitude and airspeed on certain designated reattacks. Section formation to recovery point.

3. Objectives:

- To develop additional proficiency in low altitude intercepts.
- To introduce a jinking bogey in the low altitude environment.

4. Brief:

- External lights
- Takeoff
- Radar/visual rendezvous
- Intercepts:
 - $120^{\circ}/14^{\circ}$ TCA. 1 intercepts with reattack.
 - Radar detection
 - Altitude determination
 - Heading determination
 - Chaff
- Section return to recovery point
- Fuel planning
- Recovery RCI/GCA
- Emergency procedures
 - Landing emergencies
 - Main gear: one or both in the up position
 - Blown tire
 - Broken wheel
 - Arrested landing procedures

Statement of SBS (b) (6), USAF, (b) (6)/1316 concerning accident of FAB 150437 occurring 24 April 1967.

I was scheduled to fly as a target for NUTGRASS 11-1 during the first portion of the flight and NUTGRASS 11-1 was to be a target for me during the latter half of the flight.

My instructor RIO, LT (b) (6), and I launched at 2232 local. We climbed to 6000 feet and were vectored by Tarpon for our first intercept as target. The first intercept appeared to be normal, with 11-1 coming in for a forward quarter attack and subsequent reattack. On the second intercept, we were still the target at an altitude of 4000 feet. The second intercept was normal with a slightly sucked forward quarter intercept and a little overshoot on the reattack. On the third intercept we were target at an altitude of 2,500 feet. NUTGRASS 11-1 made a normal forward quarter run and turned into the reattack at which time he appeared to descend about 500 feet below our altitude and then level out. At that time I looked forward again and checked my instruments. We were at 2500 feet and 300 KCAS. This was also our speed as target on the 2 previous runs. Our heading was 200°. Approximately 10 seconds after I turned my head forward to check my instruments, I observed the reflection of a bright orange flash on the inside of my wind screen and mirrors. I immediately began a hard port 180° turn and my RIO called Tarpon with a MAYDAY report. As we leveled our wings on about our reciprocal I observed a white cloud of smoke just above the water at about ten o'clock with what looked like an oil slick below it. The weather in the area was clear with a light haze and a bright full moon. There were numerous shrimp boats in the area with the closest being an estimated 1½ to 2 miles from the crash site. We climbed up to 5,000 feet and continued in a port orbit over the scene in constant contact with Tarpon. The crash occurred at 2302R. At approximately 2315R an EC-121 arrived on the scene and began a search orbit at 1,000 to 1,500 feet over the crash site. A SAR helicopter arrived at the site at approximately 2350R with a second helicopter enroute. We returned to Key West at 0010R because of low fuel. The second helicopter was just arriving on the scene when we departed and a Coast Guard aircraft was enroute.

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OFHARINST P3750.6B

RESUME OF FLYING EXPERIENCE OF LT RICHARD P. HURD, USN

<u>COMMAND</u>	<u>PERIOD</u>	<u>MODEL</u>	<u>HOURS</u>
VAH-123	APR 1960 AUG 1960	A-3	147
VAH-4	SEP 1960 DEC 1961	A-3	415
VAH-10	JAN 1962 SEP 1963	A-3	558
NAVPLANTREPO MCDONNELL ST. LOUIS	OCT 1963 DEC 1965	F-4	451
VF-101	FEB 1966 APR 1967	F-4	364

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST P3750.6E

Enclosure (7)

Statement of CDR (b) (6) 6650, USN, Maintenance Officer concerning accident of F-4B BuNo 150437 occurring 24 April 1957, Pilot FORD

F-4B BuNo 150437 was accepted into the Navy inventory on 25 October 1952 by BUNICREP St. Louis and subsequently delivered to VF-102 for Fleet Service. On 31 October 1952, the aircraft was transferred to VF-101 Det "A" for service. On 3 November 1952, the aircraft was transferred to VF-102 for service. On 6 February 1954, the aircraft was transferred to VF-74 and on 8 December 1955, was again transferred to VF-101.

The aircraft had completed three Progressive Aircraft Reworks (PAR). The first PAR was from 23 January 1954 to 18 February 1954; the second PAR from 22 June 1955 to 28 July 1955; and the third PAR from 2 December 1956 to 1 February 1957.

In service repair was performed during 8 - 11 May 1956 at O&R Cherry Point. During the 30 March - 5 April 1957 period, via fatigue modification and corrosion control was performed at O&R Cherry Point on 21 - 30 July 1955. The last calendar inspection (CALIPER) was performed at O&R Cherry Point during 22 December 1956 to 1 February 1957. The aircraft had accumulated 112.4 flight hours in tour and 122.0 flight hours since acceptance prior to the accident.

The engine data was as follows: Stbd J-73-GE8, Serno 4-1131 installed 2 September 1956 by VF-74. It had 361.8 hours since overhaul and 52.0 hours since new. Last inspection was completed 1 February 1957 at O&R. Port J-73-GE8, Serno 421640 installed 13 January 1957 at O&R. It had 42.4 hours since new. Last inspection completed 1 February 1957 at O&R.

Discrepancies during last ten flights were as follows:

DATE	FLT TIME	DISCREPANCY	CORRECTIVE ACTION
4-21-57	NO FLY	1. Screw lodged in nose wheel tire.	1. Changed tire.
4-21-57	1.7	1. Port utility press flux 3 1/3 psi at idle, std at 320. psi at 100% after T. Went to 320 psi n. std. Return to 320 psi when throttle retarded to idle, OK rest of hop. 2. Could not transfer port internal ring fuel.	1. Installed new utility hydraulic line. System checks normal. 2. Replaced press. vac. relief valve, TU A/C checks L/W R/H.
		3. There seems to be no difference between low and normal setting of cabin pressurization switch.	3. Normal operation.
4-21-57	1.3	NOISE	
4-21-57	1.3	NOISE	
4-21-57	1.8	NOISE	
4-21-57	1.5	1. No lights on missile status panel - even when circuit tested. 2. Radar Dot (ADD) not stabilized in roll. Drop a wing and dot goes to side of scope.	1. Replaced gun switch in 3/4 position. Checked system 4.0. 2. UP discrepancy not worked off.

<u>DATE</u>	<u>FIR. TIME</u>	<u>DISCREPANCY</u>	<u>CORRECTIVE ACTION</u>
4-24-67	1,1	NONE	
4-24-67	2,1	NONE	
4-24-67	1,4	NONE	
4-24-67	1,6	1. No Alti-7B computation, in range light A/C dim, radar crystals in "V" area (LIFC)	1. No corrective action (INFO ONLY)
4-24-67		LOST AT SEA	

On 23 April 1967 a 7 Day inspection and a minimum Ferry Inspection were completed in anticipation of transfer to VF-32 during the period 24 - 30 April 1967.

(b) (6)



Statement of (b) (6) AM, USA,
Plane Captain, concerning the accident of F-4B BU NO 150437
occurring 24 April 1967.

I preflighted aircraft Side Number 146, BU NO 150437, at approximately 2030 on 24 April 1967. I didn't find any discrepancies on the aircraft during the preflight. I sent the crew out at approximately 2200. During the turn-up I didn't notice anything unusual. The pilot seemed to be in a hurry during strapping in, however, all the flight checks on the aircraft checked out okay. To the best of my knowledge, the aircraft was in excellent shape.

I have been working as a plane captain on the VF-101 line for about 2 months.

(b) (6)

Statement of LT. (b) (6) USN, (b) (6) /1310 concerning accident of F-4B BU NO 150437 occurring 24 April 1967.

I had flown F-4B BU NO 150437 on 21 April, 1967 and noted two discrepancies. One of these was discovered prior to flight and one was discovered during the flight. The first discrepancy was failure of the lights on the Missile Status Panel to illuminate when the "arming Lights circuit was tested. Since I had no live missiles or missile simulators aboard, I overlooked this for the flight, but "DODDED" the airplane on return from the flight, giving the maintenance department a chance to fix it prior to the aircraft carrying live missiles, or missile simulators on a later flight. (Note: On F-4B BU NO 152278W and subsequent, and all other F-4B with IPC 241 incorporated it is possible for this situation to exist if the Guns Switch is in the READY position. I had known this for some time and I thought I had checked that switch to OFF prior to downing the aircraft. Later, the maintenance department signed off the discrepancy by turning the guns switch OFF -- so I must have been mistaken about checking it OFF.)

The second discrepancy noted was an oversensitive radar aim dot when in automatic track mode on the P/N-72 radar set. During wings level flight condition, the radar aim dot computed proper steering information (lead angle error). However, when the aircraft was turned i.e. lowering a wing, the radar aim dot moved toward the opposite side of the scope. The amount of displacement of the radar aim dot was dependent upon the angle of bank of the aircraft, i.e. the higher the bank angle, the greater the displacement. The aim dot was sensitive in the horizontal axis, but not the vertical axis. If a Sparrow III firing was attempted (interlocks in) in a turn, the bank angle had to be lessened to bring the aim dot back to the center of the scope and within the allowable steering error (+SE) circle. This particular discrepancy was left as an open gripe because it was not considered by me to be unsafe. It would not detract greatly from student training if the instructor explained the malfunction to the replacement pilot/RIO.

(b) (6)



SECTION A - IDENTIFICATION																			
1. FROM (Name and mailing address of unit) Naval Air Station, Key West, Florida 33040											2. DOB NUMBER 2-67								
3. TYPE OF MISMAP <input checked="" type="checkbox"/> ACCIDENT <input type="checkbox"/> AIRBORNE ACCIDENT <input type="checkbox"/> INCIDENT											4. TIME & DATE 2302R	5. DATE 24 Apr 67	6. GEOGRAPHICAL LOCATION 280/42 miles NAS Key West TACAN						
7. MODEL A/C F-4B											8. BUNO 150437	9. NO. OF OCCUPANTS TWO	10. DAMAGE CODE Alpha	11. UNIT OPERATING A/C FITRON 101					
12. INDIVIDUALS INVOLVED USE ADDITIONAL SHEETS IF REQUIRED NAME (Last, first and middle initial)											13. UNIT TO WHICH ATTACHED	14. RANK/ RATE	15. FILE/SERV. NO. DESIGNATOR	16. DUTY ASSESSMENT ABOARD A/C AT MISHAP	17. DATE OF LAST PHYSICAL	18. PHYSICALLY QUALIFIED FOR FLIGHT Yes	19. BRANCH OF SERVICE USN	20. INJURY CODE U	21. 22. DISPO- SITION
A. FORD, Daniel Rhys											VP-101	LCDR	1310	A	13 Sep 1966				
B. HURD, Richard Paul											VP-101	LT	1320	K	27 Mar 1967	Yes	USN	U	U
C.																			
D.																			
23. CLASSIFICATION OF ITEMS 13-22 WHEN NECESSARY Item 22. Remains not recovered.																			
24. MODEL OTHER A/C IF INVOLVED			25. BUNO	26. NO. OF OCCUPANTS	27. UNIT OPERATING A/C				28. DAMAGE CODE	29. MOR NO.									
30. NARRATIVE ACCOUNT OF MISHAP (Use additional 8 x 10½ sheets if required)																			

See attached sheet.

31. PRIMARY CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

Undetermined - suspect Pilot Error/RED Error.

32. CONFIRMED CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

33. PRIMARY CAUSE FACTOR ASSIGNED BY MEDICAL BOARD

(b) (6)

(b) (6)

5/12/67

5/12/67

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - FORM 2

OPNAV REPORT 3750-2

OPNAV FORM 3750-2A (REV. 5-65)

SPECIAL HANDLING REQUIRED. - See OPNAVINST 3750.2B for instructions.

SECTION B - FACTORS CONTRIBUTING TO OR RELATING TO MISHAP BY PHASE OF MISHAP (List in order of importance with Section B of line.)

1. FACTORS	2. PHASE OF MISHAP (See code at right)				PHASE CODES: A - ACCIDENT B - MISHAPE/INCIDENT C - EMERGENCY D - NORMAL	FACTOR WEIGHTS: M - MAJOR C - CONTRIBUTING Q - QUESTIONABLE OR POSSIBLE
	A	B	C	D		
Suspected Pilot Error in Technique	M					
Pilot Complacency	Q					
Limited Pilot Experience	Q					
Pilot Overconfidence	Q					
Pilot Distraction	Q					
Faulty Instrument (Radar)	Q					
Pilot Vertigo	Q					
Boots in Area	Q					

See Summary and Conclusions

SECTION C AIR CREW DATA

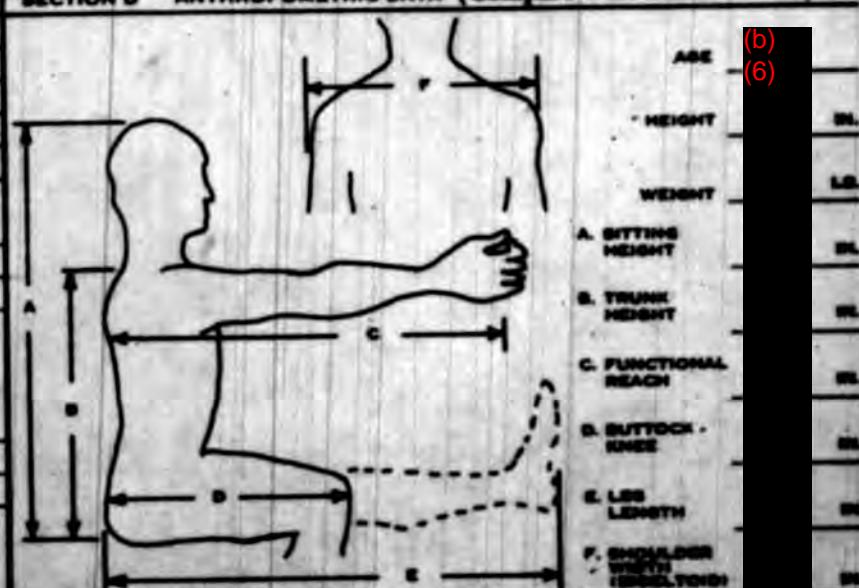
1. FLIGHT TIME LAST 30 DAYS (including present flight)	21.2			
2. FLIGHT TIME LAST 24 HOURS (including present flight)	2.1			
3. FLIGHT TIME LAST 24 HOURS (includes present flight)	Two			
4. TIME AT CONTROLS THIS FLIGHT	00 + 34			
5. TOTAL FLIGHT TIME ALL MODELS	3066			
FLIGHT TIME	6. TOTAL	7. LAST 24	8. 90 DAYS	9. 90 DAYS
THIS MODEL	21.2	21.2	21.2	21.2
10. NO. ENCOUNTERS PAST YEAR	One			
11. NO. DAYS GROUNDED PAST YEAR	Two			
12. DATES AND TYPES OF prior mishaps	None			

13. DID YOU OR A DUTY STATUS LAST 24 HRS. Ten
 14. DIRECTOR PACIFIC AT TIME OF MISHAP Unk

15. LOCATION AT TIME OF MISHAP

Front Cockpit

SECTION D ANTHROPOMETRIC DATA (Compare with health record)



LABORATORY TESTS AND RESULTS

TEST	TEST PERFORMED	RESULTS	TEST	TEST PERFORMED	RESULTS
BLOOD	1.		BLOOD	TRIGLYCERIDES	
	2.			URIC ACID	
	3.			VISCERA	
BONE			OTHER:		
G.L. CONTENT					
U.R. & STOOL					

16. AIRCRAFT	17. AIRCRAFT	18. AIRCRAFT	19. IDENTIFICATION OF PERSONNEL LICEN., WARR., (b) (6), /1310
B-57	F-4B	150437	

20. SIGNATURE: FRED, Donald Mayo

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - FORM 2

GSA FEDERAL FORM 2700-2A (REV. 2-62)

SPECIAL HANDLING REQUIRED. — See DA FORM 1790-2 for instructions.

DA FORM 2700-7

SECTION B - FACTORS CONTRIBUTING TO OR RELATING TO MISHAP BY PHASE OF MISHAP (List in order of occurrence with Section B of Inst.)

1. FACTORS	2. PHASE OF MISHAP (See code at right)				PHASE CODES: A - ACCIDENT E - ESCAPE/EMERGENCY S - SURVIVAL R - RESCUE	FACTOR WEIGHTS: M - MAJOR C - CONTRIBUTING G - QUESTIONABLE OR POSSIBLE
	A	E	S	R		
RIO Complacency	Q					
Limited RIO Experience	Q					
RIO Overconfidence	Q					
RIO Distraction	Q					
Faulty Instrument (Radar)	Q					
RIO Vertigo	Q					
Boats in Area	Q					

See Summary and Conclusions

SECTION C AIR CREW DATA

1. FLIGHT HRS. LAST 30 DAYS	19.3		
2. FLIGHT HRS. LAST 24 HOURS	2.1		
3. FLIGHTS LAST 24 HOURS	Two		
4. TIME AT CONTROLS THIS FLIGHT	00 + 36		
5. TOTAL FLIGHT TIME ALL MODELS	1814.9		
6. FLIGHT TIME THIS MODEL	6. TOTAL 7. LAST 30 8. 00 DAYS 9. 00 DAYS		
7. 815	17.2	55.2	83.1

10. NO. ENGINEERS PAST YEAR None

11. NO. DAYS DOCTORED FIRST YEAR None

12. DATES AND TYPES OF PRIOR MISHAPS

None

13. NO. HRS. IN A DUTY STATUS LAST 24 HRS.

Ten

14. DIRECTOR'S FACTS AT TIME OF MISHAP

Unk

15. LOCATING AT TIME OF MISHAP

Bear Cockpit

16. LABORATORY TESTS AND RESULTS

SPECIMEN	TEST PERFORMED	RESULTS	SPECIMEN	TEST PERFORMED	RESULTS
BLOOD	I.		TISSUE: KIDNEY		
	II.		MUSCLE		
	III.		VISCOSE		
			OTHER:		

17. MEDICAL RECORDS

2-87

F-4B

150437

IDENTIFICATION OF

LT, USAF

(b) (6)

1320

NAME OF PERSONNEL: RIO, Richard Paul

MEDICAL OFFICER'S REPORT OF AIR ACCIDENT, INCIDENT, OR GROUND ACCIDENT - 3

OPNAV REPORT 3790-7

OPNAV FORM 3790-6B (REV. 2-65)

SPECIAL HANDLING REQUIRED — See INSTRUCTIONS 3790-6B for instructions.

SECTION E

INDIVIDUAL CHRONOLOGICAL DATA

SEE PAGE 8 FOR LIST OF INSTRUCTIONS
TO BE COMPLETED ON PLANE COMMANDER, PILOT, CO-PILOT, OTHER INDIVIDUAL
IN CONTROL OF AIRCRAFT AT TIME OF INSHAP, AND/OR INDIVIDUAL CARRYING THE INSHAP

USE LOCAL TIME AND BRIEFLY RECORD ACTIVITY WITHIN EACH COLUMN

48 HOURS PRIOR TO INSHAP

TIME

22 April

No scheduled flights or duties - spent day with family.

1900

Attended squadron social function with wife.

2300

Home.

23 April

No scheduled flights or duties - spent day with family.

24 April

1300

Arrived at squadron - no special duties.

1500

Scheduled cockpit and trainer.

1600

AOM.

1730

Brief for scheduled flight.

1925

Scheduled night intercept flight.

2100

Brief for scheduled flight.

2130

Scheduled night intercept flight.

2232

Accident.

TIME

ACCIDENT PHASE

ESCAPE PHASE

SURVIVAL PHASE

TIME OF RESCUE

TIME

2-67

MODEL AC

P-4B

SERIAL

150437

LOCN.

LORRY, WIS.

(b) (6)

/1310

FORD, Daniel Mays

MEDICAL OFFICER'S REPORT OF A/V ACCIDENT, INCIDENT, OR GROUND ACCIDENT - 3

GUTT REPORT 3700-7

OPNAV FORM 3700-5B (REV. 2-63)

SPECIAL HANDLING REQUIRED — See UNCLASSIFIED 3700-7 for Instructions.

SECTION E

INDIVIDUAL CHRONOLOGICAL DATA

SEE PAGE 8 PHASE 10 OF INSTRUCTIONS
 TO BE COMPLETED ON FLAME COMMANDER, PILOT, CO-PILOT, OTHER INDIVIDUAL
 IN CONTROL OF AIRCRAFT AT TIME OF MISHAP, AND/OR INDIVIDUAL CAUSING THE MISHAP

USE LOCAL TIME AND BRIEFLY RECORD ACTIVITY WITHIN EACH COLUMN

48 HOURS PRIOR TO MISHAP

TIME

22 April

No scheduled flights or duties.

1900

Attended squadron social function with wife.

2300

Home.

23 April

Spent day with wife - no scheduled flights or duties.

24 April

1300

Reported to squadron for duties.

1730

Brief for scheduled flight.

1900

Scheduled night intercept flight

2100

Brief for scheduled flight.

2130

Scheduled night intercept flight.

2232

Accident.

↓

2302

TIME

ACCIDENT PHASE

ESCAPE PHASE

SURVIVAL PHASE

TIME OF MISHAP

NAME

S-67

GRADE

P-4B

SSN

130437

LZ. NO.:

(b) (6)

1330

RANK NUMBER

NAME, Richard Paul

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - FORM 4
DA FORM 2790-50 (REV. 5-62)

SPECIAL HANDLING REQUIRED - See DA FORM 2790-4B for Instructions.

DA FORM 2790-7

SECTION F

PATHOLOGICAL DATA

(Refer to Section F of Instructions.)

1. TRAUMA CODE AND DISPOSITION

UU

2. UNCONSCIOUSNESS

 NO YES DURATION:

3. BREATHED

4. ANESTHETIZED

5. SHOCK

MILD

MODERATE

SEVERE

6. EXPOSURE

MILD

MODERATE

SEVERE

7. EXTENT OF CARBONIZATION

8. IF ADMITTED TO DICE LIST, GIVE DIAGNOSIS

(b) (6)

#8690

9. GROUNDED? IF YES, GIVE REASON

 NO YES

10. PRIMARY CAUSE OF DEATH

(b) (6)

11. SECONDARY CAUSE OF DEATH

Aircraft Accident

12. AUTOPSY CONDUCTED BY:

 PATHOLOGIST, MEDICAL OFFICER PRESENT PATHOLOGIST, MEDICAL OFFICER NOT PRESENT MEDICAL OFFICER

13. WAS "AUTOPSY MANUAL, NAVMED PRO-65" USED?

 YES NO

14. IF NO AUTOPSY CONDUCTED, GIVE REASON

No remains recovered

15.

 PROTOCOL ATTACHED WILL BE FORWARDED

16.

INJURIES

PHASE SUSTAINED

A E S R

CAUSE AND MECHANISM (If unknown, theorize)

X

(b) (6)

17. COMMENTS

2-67	F-48	150437	(b) (6)
2000, Richard Paul			1330

MEDICAL OFFICER'S REPORT OF AIRCRAFT ACCIDENT, INCIDENT, OR GROUND INCIDENT — PAGE 5
OPNAV FORM 3750-5F (REV. 3-68)OPNAV REPORT 3750-5
SPECIAL HANDLING REQUIRED. See OPNAV INST 3750.4E AIR INSTRUCTIONS

SECTION G

ESCAPE, PERSONAL AND SURVIVAL EQUIPMENT

LIST AND CODE IN ACCORDANCE WITH SECTION G OF INSTRUCTION:			PHASE CODES: A-ACCIDENT/INCIDENT B-SURVIVAL			G-ESCAPE/EMERGENCY PHASE H-RESCUE PHASE	
1. EQUIPMENT DESCRIPTION INCLUDING SPECIFIC MODEL DESIGNATION	2. MODIFICATION	3. RE-REQUIRED	4. AVAIL-ABLE	5. NEED	6. USED	7. FAILED	8. REMARKS (Explain failures, loss, and/or difficulty encountered. Use additional 8x10½ plain paper if needed.)
<input checked="" type="checkbox"/> Helmet APH-5 <input checked="" type="checkbox"/> A13A Mask <input checked="" type="checkbox"/> RSF (2004-3) Regulator <input checked="" type="checkbox"/> MA-2 Torso Harness <input checked="" type="checkbox"/> MK-3C Life Vest <input checked="" type="checkbox"/> Large Survival Knife <input checked="" type="checkbox"/> Shroud Cutter <input checked="" type="checkbox"/> Strobe Light <input checked="" type="checkbox"/> Anti G Suit <input checked="" type="checkbox"/> Flashlight <input checked="" type="checkbox"/> M-79 MDD-O Flare Kit <input checked="" type="checkbox"/> Flight Suit <input checked="" type="checkbox"/> Flight Gloves <input checked="" type="checkbox"/> Flight Boots <input checked="" type="checkbox"/> Web Harness with Koch Shoulder Fittings and Rocket-jet Lap Belt Fittings <input checked="" type="checkbox"/> Scott Seat Kit with PRC-49 Radio							None of the issued flight equipment was found in the pilot's locker and is assumed to have been worn on this flight.

SECTION H

NARRATIVE OF ESCAPE/SURVIVAL, SURVIVAL AND RESCUE PHASES

UNIT NO. 2-67	AIRCRAFT F-4B	DATE 150437	IDENTIFICATION OF LDR, USAF, [REDACTED]	(b) (6)	1310
NAME OF INDIVIDUAL FORD, Daniel Myers					

MEDICAL OFFICER'S REPORT OF AIRCRAFT ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 3 OPNAV REPORT 5700-2
OPNAV FORM 5700-2F (REV. 2-65)
SPECIAL HANDLING REQUIRED. See OPNAV INSTR 5700AE for instructions

SECTION G

ESCAPE, PERSONAL AND SURVIVAL EQUIPMENT

LIST AND CODES IN ACCORDANCE WITH SECTION G OF INSTRUCTIONS:			PHASE CODES: A-ACCIDENT/INCIDENT			B-ESCAPE/EGRESS PHASE		
EQUIPMENT DESCRIPTION INCLUDING SPECIFIC MODEL DESIGNATION	MODIFICATION	3. RE-REQUIRED	4. AVAIL-ABLE	5. NEED	6. USED	7. FAILED	8.	REMARKS (Explain failures, loss, and/or difficulty encountered. Use additional 8x10½ plain paper if needed.)
✓ Helmet APH-6 ✓ A13A Mask ✓ RSP (2004-3) Regulator ✓ MA-2 Torso Harness ✓ MK-3C Life Vest ✓ Large Survival Knife ✓ Shroud Cutter ✓ SEEK-1 Kits ✓ Strobe Light ✓ Anti G Suit ✓ Flashlight ✓ M-79 MOD-0 Flare Kit ✓ Flight Suit ✓ Flight Gloves ✓ Flight Boots Web Harness with Koch Shoulder Fittings and Rocket-jet Lap Belt Fittings								None of the issued flight equipment was found in the RIO's locker and is assumed to have been worn on this flight.

SECTION H

NARRATIVE OF ESCAPE/EGRESS, SURVIVAL AND RESCUE PHASES

1-67	7-48	150427	(b) (6)	1300
NAME OF INDIVIDUAL	Ward, Richard Paul			

MEDICAL OFFICER'S REPORT ON AIRCRAFT ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 6 OF 8
OPNAV FORM DTGQ-06 (REV. 5-66)

SPECIAL HANDLING REQUIRED. An OPNAVINST DTGQ-10 INSTRUCTIONS

SECTION I DETAILS OF ESCAPE/RESCUE/SURVIVAL PHASES REFER TO SECTION I OF INSTRUCTIONS

I. TOPOGRAPHY OF INDIVIDUAL'S LANDING SITE

 WATER LAND OTHER

II. TYPE OF ESCAPE

 EJECTION BAILOUT UNDERWATER NORMAL Suspect no ejection
 OTHER (NAME TYPE) ATTEMPTED.

S	E	REMARKS
X	3. NOT ATTEMPTED	
	4. ATTEMPTED	
	5. ACCOMPLISHED	
	6. THRU CANOPY	
YES	7. PRIOR TO EGRESS	IF YES, EXPLAIN DIFFICULTIES
	8. DURING EGRESS	
	9. SUBSEQUENT TO EGRESS	

10. GIVE TYPE AND MODEL OF EJECTION SEAT USED

Mark 38 Baker X-5A

11. POSITION OF SEAT IN EJECTION

 UP DOWN FORWARD

11. METHOD OF FIRING SEAT

 PRIMARY SECONDARY OTHER

12. ALTITUDE AT TIME OF EXIT (FEET)

13. ATTITUDE OR MANEUVER OF A/C AT EXIT

14. SEQUENCE OF EJECTION

15. TIME IN WATER

16. AIRSPEED

17. ABOVE SEA LEVEL

18. TOPOGRAPHY

19. TIME IN RAFT

19. ALTITUDE OF PARACHUTE OPENING

20. WEIGHT

20. WAVE HEIGHT

21. WIND VELOCITY

22. WAVE HEIGHT

21. WAVE INTERVAL

23. AIR TEMPERATURE

24. WATER TEMPERATURE

25. VISIBILITY

81 Degrees

10 Miles

26. SURVIVING FACTORS

82.

83.

84.

85.

86.

87.

27. MEANS OF LOCATING ACCIDENT SITE

88.

Aircraft (Halo, MU-16)

89.

Coast Guard Cutters

90.

28. MEANS OF LOCATING SURVIVOR

91.

29. DID INDIVIDUAL DEPART FROM LANDING SITE?

92.

(If Yes, Explain reason and sequence up to point)

93.

94.

95.

96.

30. DATE OF LAST TRAINING

TRAINING FACTORS

LPC January 1967 EJECTION TOWER January 1967 EJECTION SEAT January 1967 SURVIVAL January 1967

31. DID THE LACK OF TRAINING AND/OR EXPERIENCE PLAY A PART IN ANY PHASE OF THIS DISHAPEN (If Yes, explain)

 NO YES

See Summary and Conclusions

REF ID:	MODEL A/C:	MANUFACTURER OF AIRCRAFT:
2-67	F-4B	LOCKHEED CORP.

(b) (6)

1310

NAME OF INVESTIGATOR: FORD, David Myers

MEDICAL OFFICER'S REPORT ON AIRCRAFT ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 6

OPNAV REPORT STTS-7

OPNAV FORM STTS-6B (REV. 5-65)

SPECIAL HANDLING REQUIRED. See OPNAV INTR 3730A FOR INFORMATION

SECTION I DETAILS OF ESCAPE/BORNE/SURVIVAL PHASES. REFER TO SECTION I OF INSTRUCTIONS

1. TOPOGRAPHY OF INDIVIDUAL'S LANDING SITE

WATER LAND OTHER

2. TYPE OF EGRESS

EJECTION BAILOUT UNDERWATER NORMAL OTHER (Specify type) Suspect no ejection attempted.

S	E	REMARKS
X	3. NOT ATTEMPTED	
	4. ATTEMPTED	
	5. ACCOMPLISHED	
	6. THRU CANOPY	
YES	7. PRIOR TO EGRESS	IF YES, EXPLAIN DIFFICULTIES
	8. DURING EGRESS	
	9. SUBSEQUENT TO EGRESS	

10. GIVE TYPE AND MODEL OF EJECTION SEAT USED

Martin Baker E-5A

11. POSITION OF SEAT ON EJECTION

UP DOWN FORWARD AFT OTHER

12. ALTITUDE AT TIME OF EXIT (FEET)

ABOVE SEA LEVEL	ABOVE TOPOGRAPHY	13. ATTITUDE OR MANEUVER OF A/C AT EXIT	14. AIRSPEED
TIME IN WATER	20. TIME IN RAFT	15. ALTITUDE OF PARACHUTE OPENING	16. WEIGHT
22. WAVE INTERVAL	24. AIR TEMPERATURE	21. WIND VELOCITY 07 Knots	23. WAVE HEIGHT Calm
	81 Degrees	25. WATER TEMPERATURE	26. VISIBILITY 10 Miles

27. ALERTING FACTORS

Sighting of crash from playmate.

28. MEANS OF LOCATING ACCIDENT SITE

Aircraft (Malo, HU-16)
Coast Guard Cutters

29. MEANS OF LOCATING SURVIVOR

30. DID INDIVIDUAL DEPART FROM LANDING SITE?

(If Yes, Explain reason and sequence up to present)

NO YES

SECTION II

TRAINING FACTORS

1. DATE OF LAST TRAINING

LPC September 1966 EJECTION TOWER September 1966 EJECTION SEAT April 1967 SURVIVAL November 1966

2. DID THE LACK OF TRAINING AND/OR EXPERIENCE PLAY A PART IN ANY PHASE OF THIS MISNAP? (If Yes, Report)

NO YES

See Summary and Conclusions

INFO NO. 2-67	MISSION NO. Y-43	DATE 150437	IDENTIFICATION NO. US, USAF, (b) (6) /1320
NAME OF INDIVIDUAL WEDD, Richard Paul			G R A D E / P R O F E S S I O N / C O M P A N Y / D E P A T M E N T / C O U N T R Y /

NARRATIVE

MOR. NO. 2-67 MODEL AIRCRAFT F-4B
BUNO 150437

LCDR Daniel R. FORD and LT Richard P. HURD were scheduled to fly night, low level, forward quartering, Sparrow III intercepts with sidewinder re-attacks as replacement pilot and instructor RIO respectively in the F-4B (Enclosure (1)). They were assigned the tactical call sign of Nutgrass 11-1 with Nutgrass 11-2, another F-4B, as target.

The VF-101 syllabus calls for the target aircraft to be at an optional altitude from 1-6000 feet, 300 KCAS, and the fighter to be at 2000 feet, 350 KCAS (Enclosure (3)). After briefing, LCDR FORD and LT HURD were assigned F-4B, BUNO 150437. Pre-flight and start appeared normal except that the plane captain stated LCDR FORD appeared to be in a hurry (Enclosure (9)).

Nutgrass 11-1 was airborne at 2232R and began low level intercepts with Nutgrass 11-2 as target. The first intercept was conducted with the target at 6000 feet, the second with the target at 4000 feet, and the fighter at 2000 feet on both. Both intercepts appeared to go normally (Enclosures (4) and (5)).

On the third intercept, the target was at 2300 - 2500 feet and 300 KCAS, and the fighter (Nutgrass 11-1) was at an estimated 2000 feet and 350 KCAS. The intercept went normally ending in a forward quarter intercept. The pilot and RIO of the target aircraft noted 11-1 to be rather low, but then the aircraft appeared to level off as it approached the eight o'clock position, and visual contact was lost. Shortly thereafter both the pilot and RIO of 11-2 experienced a flash in the windscreens of their aircraft. They turned immediately to see a short fire on the water and then an oil slick (Enclosures (4) and (5)). They noted the bearing and distance from the NAS Key West TACAN and notified their GCI Controller. The time was 2302R.

Search and rescue operations were begun immediately by helicopters, an EC-121, an HU-16, and two Coast Guard surface vessels. The following morning several pieces of debris from the aircraft were found. The hardhats of both LCDR FORD and LT HURD were found (Enclosure (12)). The search for survivors was discontinued the following day after negative results.

The weather in the area of the accident was clear, with a full moon and visibility of ten miles. The horizon was partially obscured by a haze layer (Enclosure (11)). There were no eyewitnesses to the accident.

SUMMARY AND CONCLUSIONS

MOR NO. 2-67

AIRCRAFT MODEL F-4B

BUNO

150437

On 24 April 1967 at 2030R, LCDR Daniel FORD and LT Richard HURD apparently flew into the water in an F-4B aircraft, BUNO 150437. Their mission had been a routine low level, forward quartering intercept with a sidewinder reattack. After two normal intercepts, the target descended to 2500 feet and the intercept proceeded normally until the fighter aircraft attempted the reattack. There were no transmissions from the fighter aircraft prior to impact with the water.

The accident board discussed a number of possible factors relating to the mishap. Material and maintenance failures were considered, such as AJB-3 gyro failure, an electrical failure, an erratic radar dot, catastrophic explosion and maximum overstress. There was no evidence to support any of these factors. The aircraft had been flown five times the day of the accident; no significant discrepancies had been noted (Enclosures (8) and (10)). No report of any discrepancy was received from the aircraft prior to the accident, and the flight until that point had been conducted normally.

Of significance was the fact that the pilot had only 21 hours in the F-4B. He had been in proficiency flying billets for 34 months before reporting aboard VF-101. He accumulated flight time in the C-1A and US-2B aircraft. The lack of jet time during this period is noted (Enclosure (6)). His prior jet time had been in the F-11A and F-8C. LCDR FORD had done well in his previous flights, but was quite aggressive in some situations and had been noted as being rather reluctant to accept constructive criticism. It was thought also that the bright night may have induced him to make a visual reattack rather than a radar one, and the possibility of mistaking a shrimp boat as his target was also discussed. Vertigo and disorientation were considered. During the reattack, the pilot must move a switch to the heat mode on the missile control panel located six inches left of the center on the lower left side of the forward instrument panel in a cluster of four switches. This was considered distracting but not requiring sufficient head movement to produce Coriolis effect. LCDR FORD was a second tour aviator. This may have placed LT HURD in an attitude of complacency.

Investigation revealed that both crewmembers had received adequate sleep the preceding night. No psychological factors were discovered which may have influenced the accident. Neither officer had consulted me for any illness recently. Both were physically qualified for flight, had recent physicals, pressure chamber, ejection seat trainer and survival swimming.

(b) (5)

RECOMMENDATIONS

MOR NO. 2-67

AIRCRAFT MODEL F-4B
BUNO 150437

This is the second accident at VF-101 which has occurred during night low level intercept training. AAR 4-66A from this command describes a very similar accident which occurred on 5 August 1966. In that accident two Naval Officers with over 1700 hours of combined F-4 time and a new aircraft were lost. The target aircraft had been at 6000 feet, and the fighter at 4000 feet in that accident.

The accident board discussed the possibility of setting a lower altitude limit of 5000 feet during night training flights. (b) (5)

(b) (5)

(b) (5)
(b) (5) It must be continuously reinforced to both instructors and replacement crews that someone must watch the altimeter.

(b) (5)

(b) (5)

This accident, and the previous one, vividly illustrate that complacency is a factor which must be eliminated. Frequent safety and operations briefings are suggested in an attempt to do this, especially when the effect of this accident has subsided.

It is also suggested that jet aviators in proficiency billets be provided the opportunity to maintain jet proficiency. (b) (5)

(b) (5)

NAVAL WEATHER SERVICE ENVIRONMENTAL DATA REPORT
U.S. NAVAL AIR STATION
KEY WEST, FLORIDA

25 APRIL 1967

ATMOSPHERIC PHENOMENA/WEATHER CONDITIONS OBSERVED AT 2300 EST 0400Z ON 24 APRIL 1967
AT NAVAL AIR STATION KEY WEST, FLORIDA.

SKY CONDITIONS: CLEAR

VISIBILITY: 10 MILES

WEATHER AND OBSTRUCTIONS TO VISION: NONE

SEA LEVEL PRESSURE IN MILLIBARS: 1021.0

ALTIMETER SETTING: 30.14

STATION PRESSURE: 30.130 INCHES

PRESSURE ALTITUDE: -180

VAPOR PRESSURE: 0.6

DENSITY ALTITUDE: -1500

TEMPERATURE: 81 DEGREES FARENHEIT

RUNWAY TEMPERATURE: 81 DEGREES FARENHEIT

TEMPERATURE DEVIATION: +22 DEGREES FARENHEIT

DEW POINT: 65 DEGREES FARENHEIT

RELATIVE HUMIDITY: 58%

WIND DIRECTION FROM TRUE NORTH: 060 DEGREES

WIND SPEED: 07 KNOTS

WIND CHARACTER AND SHIFTS: NONE WEST

REMARKS: THE WEATHER IN THE AREA 50 MILES OF KEY WEST, FLORIDA AT 2300 EST ON THE

24th DAY OF APRIL 1967 WAS:

SKY CONDITIONS: 2500 SCATTERED

VISIBILITY 10 MILES

WIND DIRECTION FROM TRUE NORTH: 060 DEGREES

WIND SPEED: 06 KNOTS

(b) (6)

AGAN USN

OBSERVER

(b) (6)

AGAN

AGI USN

DUITY FORECASTER

(b) (6)

LJ USN

OFFICER IN CHARGE

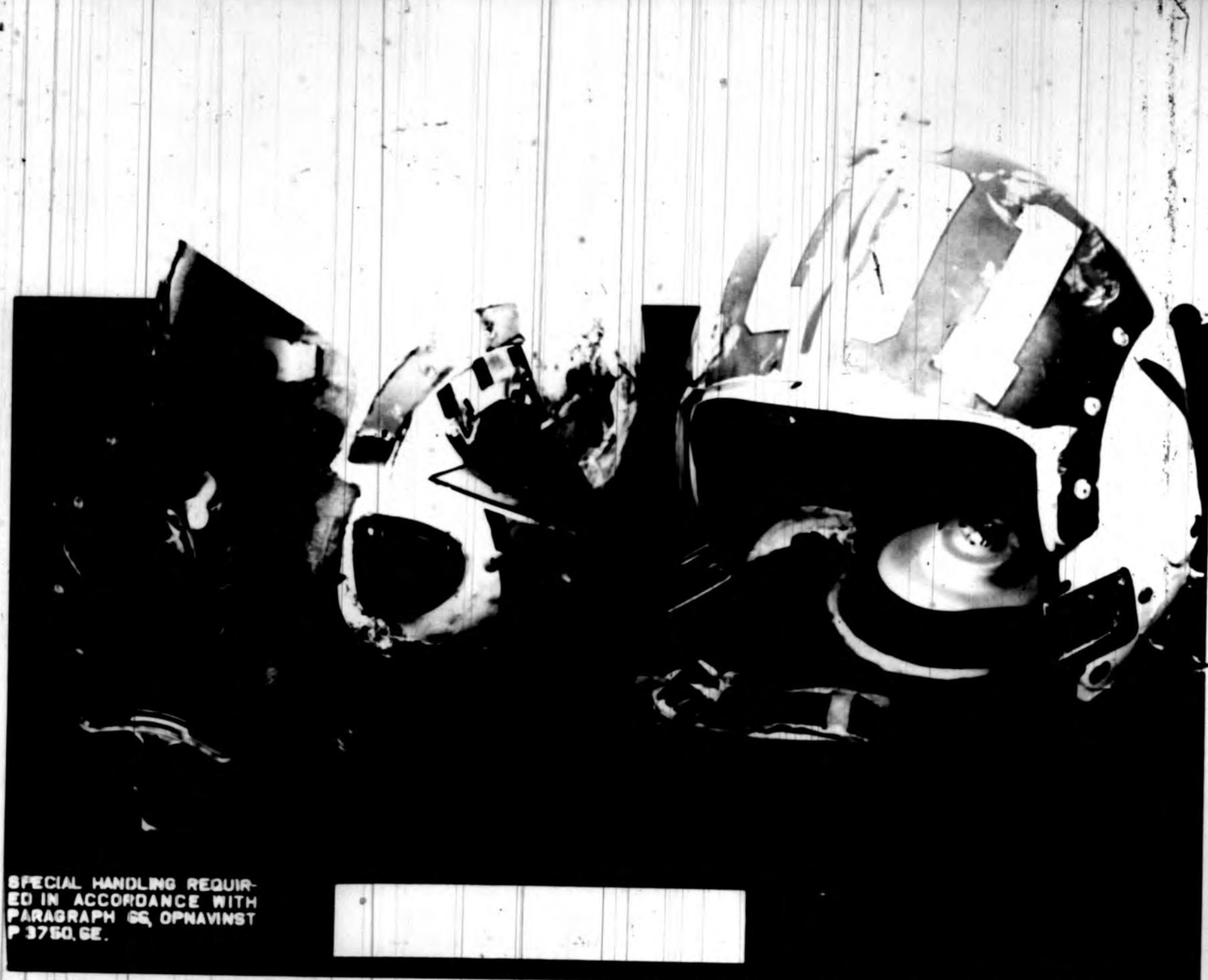
HWI

SPECIAL HANDLING REQUIRED
in accordance with
PARA 66 OPNAVINST 3750.6E

ENCLOSURE (II)



SPECIAL HANDLING REQUI-
RED IN ACCORDANCE WITH
PARAGRAPH 6E, OPNAVINST
P 3750.6E.



SPECIAL HANDLING REQUI-
ED IN ACCORDANCE WITH
PARAGRAPH 66, OPNAVINST
P 3750.6E.

NNNNZCZC NASC055CSLB 634
FTTE JAW RUCLESA 1237 1150845-EEEE--RUCILSA.
ZNY EEEEE
P R 250902Z APR 67
FM FITRON ONE ZERO ONE
TO RUENAAA/CNO
RUCILSA/NAVAVSACEN
INFO RUEDBHB/NAVAIRSYSCOMHQ
RUCLBEA/COMSIX
RUCLAKA/COMREADATKCARAIRWING FOUR
ZEN/COMFAIRKWEST
RUCILMA/COMNAVIAIRLANT
RUWJAPA/COMREADATKCARAIRWING TWELVE
RUWJMUA/COMNAVIAIRPAC
RUCIHHA/NAV PLANTREPO MCDONNELL STL
ZEN/NAS KWEST
RUCIJFA/BUPERS
RUEDNKA/CINCLANTFLT
RUWJABA/DIRECTOR AEROSPACE SAFETY MORTON AFB
RUEDJPA/DIRECTOR ARMED FORCES INSTITUTE OF PATHOLOGY
RUHHFMA/CG FMF PAC
RUCINVA/CG FMFLANT
RUCILKA/FITRON ONE ZERO ONE DET OCEANA

055/67

A A R

PAGE TWO RUCLESA 1237 UNCLAS E F T O

BT

UNCLAS E F T O ~~FOR OFFICIAL USE ONLY~~

PRELIMINARY MESSAGE REPORT OF ACFT ACCIDENT

- A. OPNAVINST P 3750.6E
- I. F-4B BUNO 150437, VF-101
2. 24 APRIL 1967 2302R 280DEGREE/42 MILES KEY WEST TACAN
3. AIR INTERCEPT
4. ALFA
5. UNCONTROLLED COLLISION WITH WATER DURING REATTACK FOLLOWING A FORWARD QUARTERING NIGHT INTERCEPT. TARGET AIRCRAFT AT 2500 FT.
6. DANIEL RHYS FORD, LCDR, (b) (6) /1310 USN ACTIVE, MISSING PRESUMED FATAL
7. RICHARD PAUL HURD, LT, (b) (6) /1320 USN ACTIVE, MISSING PRESUMED FATAL, RIO
8. NONE
9. ACTION OF AIRCREW UNKNOWN, NO DAMAGE TO PRIVATE OR GOVERNMENT PROPERTY.

BT

APR 67
250902Z

NNNNHSWRPAGQQUCZCSLA389
PTTE JAV RUCLESA1288 1152301-EEEE--RUCILSA.

ZNY EEEEE
P R 252301Z APR 67
FM FITRON ONE ZERO ONE

TO RUENAAA/CNO
RUCILSA/NAVAVSAFCEN
INFO RUEDBHB/NAVAIRSYSCOMHQ

RUCLBRA/COMSIX
RUCLAKA/COMREADATC CARAIRWING FOUR
RUWJAPA/COMREADATC CARAIRWING TWELVE

ZEN/COMFAIRKWEST

RUCILMA/COMNAVAILANT
RUWJMUA/COMNAVAIIPAC

ZEN/NAS KWEST

RUCIHHA/NAVPLANTREPO MCDONNELL STL

RUCIJFA/BUPERS

RUEDNKA/CINCLANTFLT

RUEDJPA/DIRECTOR ARMED FORCES INSTITUTE OF PATHOLOGY

RUCILKA/FITRON ONE ZERO ONE DET OCEANA

RUMMFMA/CG FMFPAC

RUCINVA/CG FMFLANT

BT

149/67

SUPP AAR

PAGE 2 RUCLESA1288 UNCLAS E F T O
~~UNCLAS E F T O FOR OFFICIAL USE ONLY~~
SUPPLEMENTARY MSG REPT OF AAR

A. OPNAVINST P3750.6E

B. VF-181 250902Z APRIL 67

1. F-4B, 150437, VF-181, SER 2-67A, FORD

2. NIGHT AIR INTERCEPT, KEY WEST TO KEY WEST, VFR, @PLUS30

3. ALFA. LOST AT SEA

4. COLLISION WITH WATER DURING NIGHT INTERCEPT RCVW TRAINING MISSION.

5. ON THIRD INTERCEPT WITH FIGHTER AIRCRAFT ASSIGNED 2,000 FT 350 KNOTS AND TARGET AIRCRAFT ASSIGNED OPTIONAL ALTITUDE BETWEEN 1,600 FT AND 6,000 FT, 300 KNOTS, FIGHTER AIRCRAFT SIMULATED SPARROW III FIRING FROM FORWARD QUARTERING POSITION. DURING REATTACK FIGHTER PASSED OUT OF SIGHT ASTERN AND SLIGHTLY BELOW THE TARGET AIRCRAFT (ACTUAL ALTITUDE 2,500 FT). REFLECTIONS FROM BRIGHT FLASH OBSERVED BY CREW OF TARGET AIRCRAFT WHO IMMEDIATELY TURNED AND SAW MOMENTARY FIRE IN WATER FOLLOWED BY SMOKE AND OIL SLICK IN SAME VICINITY. CAUSE UNKNOWN.

6. CAVU, FULL MOON, TEMP 81DEGREES, DEW P 65, WIND 620 DEGREES/8 KNOTS.

7. NONE

8. NO

PAGE 3 RUCLESA1288 UNCLAS E F T O

9. NA

10. BREWS ACTIONS OF AIRCREW UNDETERMINED.

11. NONE

12. INJURY CLASSIFICATION - TWO FATAL.

BT

APR 67

252301Z